

TEMPLE BANK, BEETHAM, MILNTHORPE, CUMBRIA

Archaeological Building Recording and Watching Brief



Client: Mr and Mrs Phillips

NGR 349686 479491

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January 2023



The Site	
Site Name	Temple Bank, Beetham, Milnthorpe
County	Cumbria
NGR	349686 479491

Client	
Client Name	Mr and Mrs Phillips

Planning	
Pre-planning?	No
Planning Application No.	Garage: SL/2021/1058 Barn: SL/2021/1023
Condition number	6
Building to be recorded	Barn to south-west of house
Elements subject to watching brief	Excavation of garage footings and associated landscaping
Local Planning Authority	South Lakeland District Council
Planning Archaeologist	Jeremy Parsons, Historic Environment Officer, Cumbria County Council

Desk-based Assessment	
Relevant Record Office(s)/Archive Centre(s)	Cumbria (Kendal)
Relevant HERs	Cumbria

Archiving	
Relevant Record Office(s)/Archive Centre(s)	Kendal
Relevant HER	Cumbria

Staffing	
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Watching Brief	Dan Elsworth
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Non-Technical Summary

Prior to the submission of any planning applications for work at Temple Bank, Beetham, Milnthorpe, Cumbria, Greenlane Archaeology was commissioned to carry out a desk-based assessment of the site. This was completed in May 2021. Following this and the granting of planning permission, a condition was placed requiring an archaeological building recording of the barn due to be converted and an archaeological watching brief on the excavation of footings for a new garage and associated landscaping within the garden.

Temple Bank is on the east side of the centre of Beetham. Information contained in the Historic Environment Record revealed a variety of sites of archaeological interest located within close proximity to the site, the most pertinent of which is the supposed remains of a medieval chapel dedicated to St John, evidence for which, including human burials, was found during the construction of the present house. Nearby are the parish church of St Michael, which has at least 11th century origins, and medieval chantry college. Other human remains have also been uncovered in the village, thought by an antiquarian source to be the results of a battle. Temple Bank itself was constructed in the early 19th century, probably in 1816, by the Revd Joseph Thexton, after he became vicar of Beetham in 1811. There was, however, apparently a building already on the site before this date.

The map evidence shows that the site had essentially developed its present form by the beginning of the 19th century, and this, and other documentary sources, show that it remained in the ownership of Thexton's descendants into the early 20th century. In the 1920s it was passed to the diocese, although it never seems to have officially been used as a vicarage; that was immediately next door to the east. After carrying out numerous repairs in the following decades the church decided to sell it in 1949.

The building recording revealed that the barn was probably of late 18th or early 19th century, and represents a good, if unusual, example of a bank barn. It perhaps predated the current house and was converted from a purely agricultural use to something more appropriate to a domestic setting as it contained a range of features such as stabling and a toilet. Nevertheless, it is remarkably well preserved and was subject to very few later changes.

The watching brief revealed very little of interest in the initial excavation for the footings, although a thick buried soil was revealed, as well as a later pit containing ironworking slag and animal bone, and some loose human bone. However, excavation for a new retaining wall revealed a row of five graves containing at least 11 human burials, buried below the same thick soil, and with a range of other features, including a shell midden. The human burials showed a range of burial forms, with supine being most common, but flexed and even prone also present. All were buried approximately east/west with their head to the west in the Christian tradition, but there was no direct dating evidence. Stratigraphically they are likely to be medieval or earlier, which fits with the historic suggestion that there was a medieval chapel on the site. An assessment of the human bones, including numerous disarticulated ones recovered from later contexts and unstratified pieces from the spoil, revealed that as many as 31 individuals are represented, with a range of interesting pathologies, including joint disease, neoplastic disease, and various trauma. Other finds recovered during the watching brief include: a range of animal bone, including unusual examples such as eel and deer antler with evidence for working; some residual medieval pottery, and large quantities of post-medieval pottery from the buried soil. A range of early post-medieval coins and a *jetton* struck in Nuremberg were recovered from the spoil with the metal detector.

The work at Temple Bank has confirmed that earlier accounts of human remains being found at the site are correct and that the area was clearly used as a burial ground, probably associated with a chapel. What date this occurred is uncertain; however, it seems likely to have been in the medieval period. It is recommended that further analysis of the human remains, radiocarbon dating, and publication of the results be undertaken.

Acknowledgements

Greenlane would like to thank Emma and Mark Phillips for commissioning the project and for their hospitality and assistance on site. Additional thanks are due to Claire Asplin for assisting throughout the watching brief, and for obtaining the further help of Andy Pringle and Jim Glenister (the latter of whom also carried out a geophysical survey of areas of the garden), and Matt Hepworth and David Kiersek for metal detecting the spoil. Special thanks are due to Mark Lumsden for driving the excavator and for his patience, and for everyone working on site at the time of the watching brief for their interest and enthusiasm.

Special thanks are also due to Matt Champion for commenting on the inscribed stone from context **113**.

1. Introduction

1.1 Circumstances of the Project

1.1.1 The circumstances of the project are set out in the tables on the inside cover of this report.

1.2 Location, Geology, and Topography

1.2.1 The site is on the east side of the centre of Beetham and at approximately 30m above sea level (Figure 1; Ordnance Survey 2011). Beetham is situated less than 2km south of Milnthorpe and west of the A6, on the eastern edge of Morecambe Bay.

1.2.2 The site lies within the area of Morecambe Bay Limestones, a rolling landscape dominated by the intertidal zone (Countryside Character 1998, 69) and solid geology comprising carboniferous limestone (Moseley 1978, plate 1). This in turn is overlain by glacial deposits of boulder clay, although lower-lying areas have also been influenced by sea-level change and mosslands have developed as a result (Countryside Character 1998, 72).

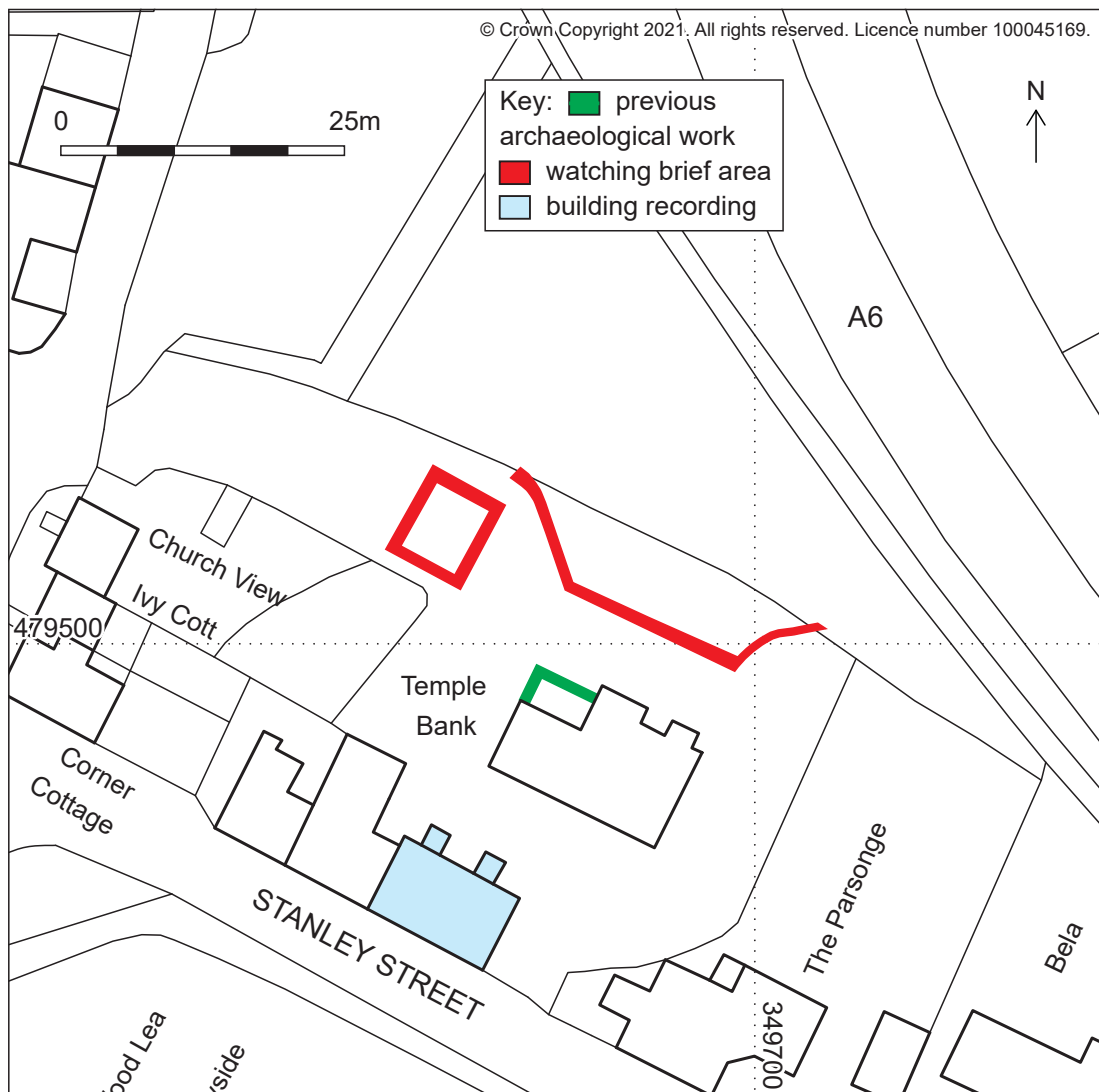
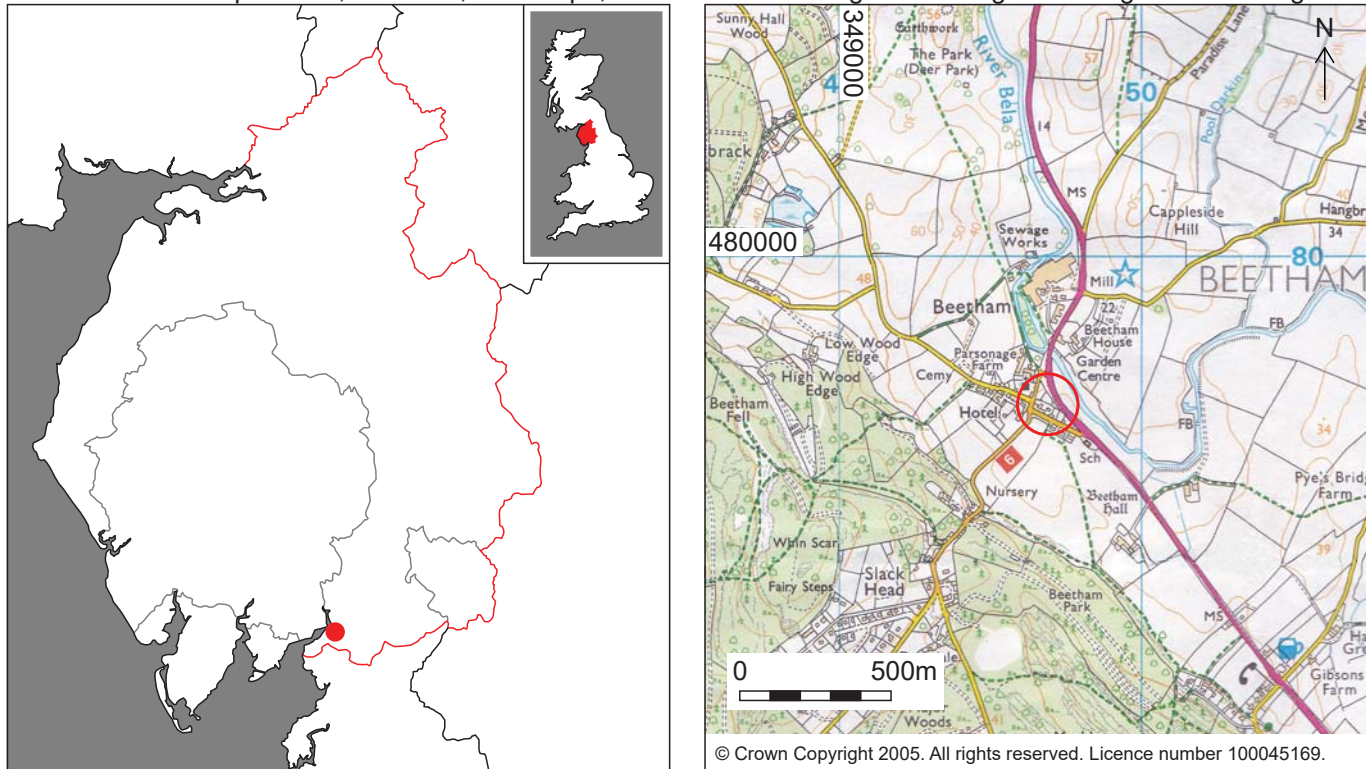


Figure 1: Site location

Client: Mr and Mrs Phillips

2. Methodology

2.1 Desk-Based Assessment

2.1.1 A summary of the desk-based assessment of the site carried out by Greenlane Archaeology (2021) is reproduced here. This was carried out in accordance with the standards and guidance of the Chartered Institute for Archaeologists (CIfA 2020a) and principally comprised examination of early maps of the site and published secondary sources. The written scheme of investigation for the work is presented in *Appendix 1*.

2.2 Archaeological Building Recording

2.2.1 The building recording was carried out to Historic England Level 2/3 type standards (Historic England 2016), which provides a relatively detailed record of the building, and according to the standards and guidance of the CIfA (CIfA 2020b). The recording comprised the following elements:

- **Written record:** descriptive records of all parts of the building were made using Greenlane Archaeology *pro forma* record sheets;
- **Photographs:** photographs in colour digital format (as both 12meg jpegs and RAW files) were taken of the main features of the building, its general surroundings, and any features of architectural or archaeological interest. A selection of the colour digital photographs is included in this report, and the remaining photographs are in the project archive;
- **Drawings:** 'as existing' architect's drawings were provided by the client's architect. These were plotted at a scale of 1:50 and annotated by hand with additional detail.

2.3 Archaeological Watching Brief

2.3.1 The watching brief monitored groundworks associated with the project set out in the tables on the inside cover of this report.

2.3.2 All aspects of the archaeological watching brief were carried out according to the standards and guidance of the Chartered Institute for Archaeologists (CIfA 2020c) and Greenlane Archaeology's own excavation manual (2007). The deposits encountered were recorded in the following manner:

- **Written record:** descriptive records of all deposits were made using Greenlane Archaeology's *pro forma* record sheets. A summary of the contexts encountered is presented in *Appendix 2*;
- **Photographs:** photographs in colour digital format (both 12 meg JPEG and RAW file format) were taken of the site as well as general working shots. A selection of the colour digital photographs is included in this report. A written record of all of the photographs was also made using Greenlane Archaeology's *pro forma* record sheets;
- **Drawings:** drawings were produced on site as follows:
 - i. a site plan of the area of excavation for the new garage was produced at a scale of 1:100, based on an existing plan of the site;
 - ii. a plan of the area of excavation for the new retaining wall and associated landscaping was produced at a scale of 1:200;
 - iii. a section along the trench excavated for the new retaining wall was produced at a scale of 1:20;
 - iv. plan drawings of each grave discovered during the excavation for the new retaining wall were produced at a scale of 1:20.

2.3.3 Since it was anticipated that human remains might be encountered during the watching brief an exhumation licence was obtained from the Ministry of Justice prior to any groundworks taking place; licence No. 22-065, dated 4th March 2022.

2.4 Environmental Samples

2.3.1 No environmental samples were collected; however, soil samples were taken from specific areas within some of the graves in order to allow coarse sieving to increase the likelihood of finding small finds such as beads and to aid the recovery of small bones (see *Appendix 5*).

2.5 Finds

2.5.1 **Collection:** all of the finds were recovered by hand and stored in self-seal bags with white write-on panels on site before being removed for processing and assessment. The spoil was also checked with a metal detector and any non-iron finds retained.

2.5.2 **Processing:** all of the artefacts recovered from the watching brief were washed, with the exception of metal objects, which were dry-brushed. They were then naturally air-dried and packaged appropriately in self-seal bags with white write-on panels.

2.5.3 **Assessment and recording:** the finds were assessed and identified in the first instance by staff at Greenlane Archaeology and subsequently assessed by the named specialists on the cover sheet. The finds were recorded directly into the catalogue produced as part of this report (*Appendix 3*).

2.6 Archive

2.6.1 The archive of the project will be deposited with the relevant Record Office or Archive Centre, as detailed on the cover sheet of this report, together with a copy of the report. The archive has been compiled according to the standards and guidelines of the ClfA guidelines (ClfA 2020d). In addition, details will be submitted to the *Online Access to the Index of Archaeological Investigations* (OASIS) scheme. This is an internet-based project intended to improve the flow of information between contractors, local authority heritage managers and the general public. A copy of the report will be provided to the client and a digital copy of the report will be provided for the relevant Historic Environment Record, as detailed on the cover sheet of this report.

3. Desk-Based Assessment

3.1 Map Regression

3.1.1 **Introduction:** the earliest useful maps are from the 19th century, beginning with the tithe map of 1839. The site is split between two tithe maps as part of it was in Beetham parish and part in Haverbrack township.

3.1.2 **Tithe map, 1839:** the majority of the site is depicted on the tithe map for Beetham (NA IR 29/37/10 1839; Plate 1), which shows that the main part of the site, containing Temple Bank itself, plot 418, contains a large building on the footprint of the current house (although this section of the map is damaged). The northern part of the site was covered by the tithe map for Haverbrack township (NA IR 29/37/36 1839; Plate 2) and comprised part of plot 136. Details of the plots, taken from the tithe apportionments (NA IR 29/37/10 1845 and NA IR 29/37/36 1838) are listed in Table 1 below:

Plot	Owner	Occupier	Name and Description	State of cultivation
136	Revd John Hudson	Revd John Hudson	Bridge Meadow	Meadow
418	John Yeats Thexton	John Yeats Thexton	House gardens &c	-
419	John Yeats Thexton	John Yeats Thexton	Barn	-
420	John Yeats Thexton	J Squires and Edward Pooles	Houses	-
422	John Yeats Thexton	Thomas Shaw	House and Orchard	-
423	John Yeats Thexton	John Yeats Thexton	House	-

Table 1: Details of plots within the site in the tithe apportionments



Plate 1 (left): Extract from the tithe map of 1839 for Beetham parish showing the site

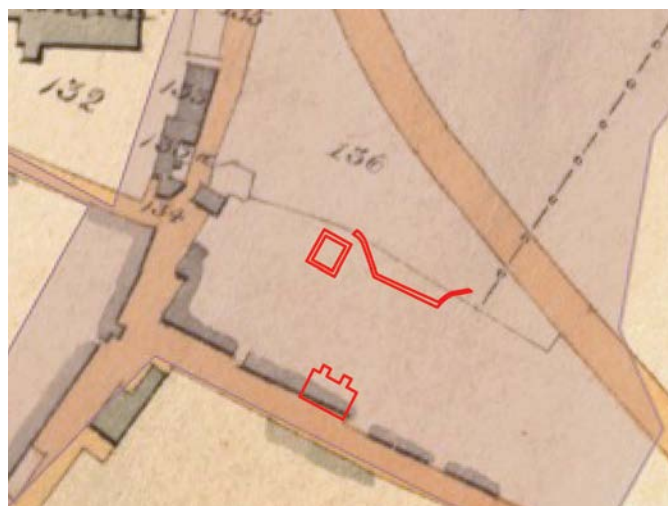


Plate 2 (right): Extract from the tithe map of 1839 for Haverbrack township showing the site

3.1.3 **Ordnance Survey, 1862:** this is the first Ordnance Survey map of the area (Plate 3). It shows the house at Temple Bank much as it is on the earlier tithe map, although with a narrower section to the west, and a drive now links the house to the road to the west (and possibly also to Stanley Street to the south). The barn to the south of the house is still present but other, smaller, outbuildings have been removed. Of particular interest is the fact that the house is labelled ‘St John’s Lodge Site of St John’s Chapel’ rather than Temple Bank.

3.1.4 **Ordnance Survey, 1898:** this is more detailed than the previous maps but shows essentially the same information. It is evident, however that the house has bay windows on the north side, the barn to the south is larger and more rectangular in plan, and there is a pump marked next to it (as ‘P’; Plate 4). The house at this time is labelled ‘Temple Bank on site of St John’s Chapel’.



Plate 3 (left): Extract from the Ordnance Survey map of 1862 showing the site

Plate 4 (right): Extract from the Ordnance Survey map of 1898 showing the site

3.1.5 **Ordnance Survey 1914:** this is essentially the same as the earlier map, although the north-west bay window on the house has apparently been modified, the barn to the south now has two small outshuts, and the pump is no longer marked (Plate 5). The house is again labelled 'Temple Bank on site of St John's Chapel'.

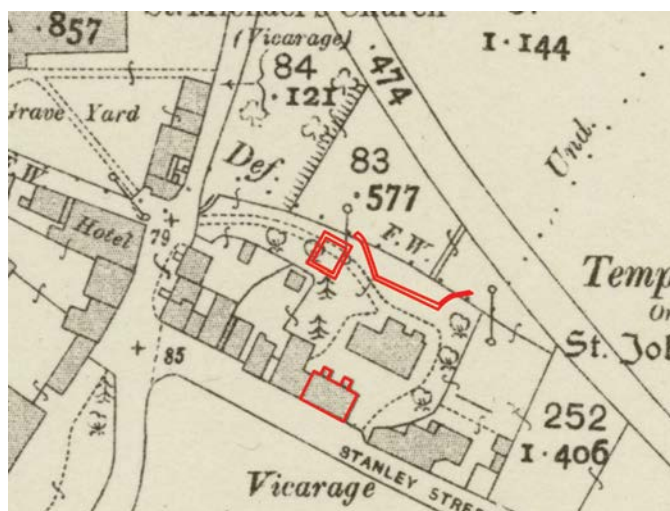


Plate 5: Extract from the Ordnance Survey map of 1914 showing the site

3.2 Site History

3.2.1 **Prehistoric Period (c11,000 BC – 1st century AD):** while there is limited evidence for activity in the county in the period immediately following the last Ice Age, this is typically found in the southernmost part on the north side of Morecambe Bay. Excavations of a small number of cave sites have found artefacts of Late Upper Palaeolithic type and the remains of animal species common at the time but now extinct in this country (Young 2002; Smith *et al* 2013). The county was also clearly inhabited during the following period, the Mesolithic (c8,000 – 4,000 BC), as large numbers of artefacts of this date have been discovered during field-walking and eroding from sand dunes along the coast, but these are typically concentrated in the west coast area and on the uplands around the Eden Valley (Cherry and Cherry 2002). Slightly closer to the site, however, a large number of finds of this date were discovered during excavations carried out in the 1970s in the park belonging to Levens Hall, and, although largely ignored at the time, they were subsequently published (Cherry and Cherry 2000). In addition, a small amount of Mesolithic material has been found at the north end of Windermere during excavations on the Roman fort site (see for example Finlayson 2004). These discoveries, particularly those at Levens,

demonstrate that further remains of similar date are likely to exist in the local area and that river valleys, lakesides, and coastal areas are a common place for such remains to be discovered (Middleton *et al* 1995, 202; Hodgkinson *et al* 2000, 151-152).

3.2.2 In the following period, the Neolithic (c4,000 – 2,500 BC), large scale monuments such as burial mounds and stone circles begin to appear in the region and one of the most recognisable tool types of this period, the polished stone axe, is found in large numbers across the county, having been manufactured at Langdale to the north-west (Hodgson and Brennand 2006, 45). None are recorded in the immediate proximity of Temple Bank although one was found during archaeological excavations on Sizergh Fell, apparently deliberately placed into a limestone gryke (Edmonds and Evans 2007), and another is recorded near Levens (Cherry and Cherry 1987; Fell 1987). During the Bronze Age (c2,500 – 600 BC) monuments, particularly those thought to be ceremonial in nature, become more common still, and it is likely that settlement sites thought to be Iron Age or Romano-British in date have their origins in this period. Sites of this date are represented to the north by a collection of remains on Sizergh Fell and in the area around Levens, including a settlement and various mounds, which have been subject to survey and excavation on a number of occasions (Anon 1904; Hughes 1904a, 71 and 76-9; 1904b 201-204; 1912b, 404; RCHME 1936, 157; Fell 1953; Edmonds *et al* 2002; Evans and Edmonds 2003; Edmonds and Evans 2007). Burials, in the form of cremations, are a relatively common find of the Bronze Age, including a small cremation cemetery revealed during archaeological work in advance of developments at Dallam School in Milnthorpe (Platell 2013), as well as a Beaker burial on Sizergh Fell (Fell 1953). Stray finds of metal work of the period are also known, and include an early Bronze Age cast-flange axe head recorded next to the River Kent (PAS LVPL 288). Sites that can be specifically dated to the Iron Age (c600 BC – 1st century AD) are very rare in the wider region, although it is likely that some or all of the settlement sites probably originating in the Bronze Age continued to be occupied into this period (Hodgson and Brennand 2006, 34). One of the most well-known types of site of the Iron Age is the hillfort, and while there are several examples around Morecambe Bay and extending towards Kendal, few have seen any excavation or are properly dated (Elsworth 2014). Levens is unique in Cumbria in having excavated Iron Age burials, discovered in the village in 2002 (OA North 2002; 2004), although the cemetery appears to be very small. There is also likely to have been a considerable overlap between the end of the Iron Age and the beginning of the Romano-British period; it is evident that in this part of the country, initially at least, the Roman invasion had a minimal impact on the native population in rural areas (Philpott 2006, 73-74), something that is apparent at the settlement on Sizergh Fell, which had some finds thought to date to the 2nd or 3rd century AD (Hughes 1912a; a brooch of similar style from Langbank crannog in Scotland was dated to the 1st century AD; Alexander 2000, 157 and 159).

3.2.3 **Romano-British to Early Medieval Period (1st century AD – 11th century AD):** the area immediately around Beetham has relatively minimal evidence for activity from the Roman period, the nearest known Roman forts being at Watercrock on the south side of Kendal, to the north, and Lancaster to the south, although Roman finds, particularly coins, are relatively well-known from the wider area (Shotter 2004). Whether the Roman military had a greater influence over the north side of Morecambe Bay via crossing the sands and establishing a fort in Furness is still debated; there is some evidence that they did, but further proof is still needed (Elsworth 2007). In the Beetham area it is apparent that the 'native' style settlement on Sizergh Fell continued to be occupied into the Roman period, and it seems likely that the impact of Roman rule was less substantial in rural areas. The nearest fort, at Watercrock, was identified at an early date (Potter 1979, 143), but was only excavated in the middle of the 20th century and later, revealing evidence for activity from the late 1st century and into the 4th century (*op cit*, 176-180). Recent archaeological work in the environs of the fort has found evidence for associated activity, perhaps part of an extended *vicus*, as has been revealed at other Roman forts in the area (Elsworth and Mace 2021).

3.2.4 The early medieval period is not well represented in the area in terms of physical archaeological remains, which is a common situation throughout the county. Place-name evidence from the area around Beetham indicates a strong Anglian and Norse influence. The name Beetham itself derives from a Norse word *bjǫð* meaning earth, land, or more likely embankment and so probably referring to embankments made by the river (Smith 1967, 67). While this does not necessarily prove there was a settlement there in the early medieval period, Beetham is recorded in the Domesday survey of 1086, proving that there

was one there by at least the end of the 11th century. In addition, the church at Beetham, now dedicated to St Michael, was said to be dedicated to '*Saint Leoth or Lithe (Lioba or Liobgytha)*' by Machell, writing in 1692 (Ewbank 1963, 50), suggesting an early medieval origin (Lioba was active in the 8th century). A small group of 11th century coins, of Edward the Confessor, William the Conqueror, and William Rufus (the HER has these listed as of Cnut: SMR 3084), was found during excavations for a grave within the tower of the church in 1834. They '*had been placed in a block of ashlar hollowed out for their reception*', so it was thought that they could be used to date the foundation of at least part of the current building (Bintley 1870, 260).

3.2.5 An account of human remains found to the south of the River Bela in Beetham was taken as evidence for a battle in the area in the early medieval period (Nicholson 1832, 23), although no evidence to corroborate was provided. Interestingly, however, four skeletons were also found near Levens in 1911, while laying pipes for a water supply (Hughes 1912b, 404), and these may belong to the early medieval period on account of their approximately east/west orientation and lack of other context. Contemporary newspaper accounts speculated that the field in which these burials were found had also been the site of a battle and reported a coin amongst the finds (Anon 1911a; 1911b). Both were dismissed in the published account, the coin was apparently a 'York token' found some distance away and the graves were considered too orderly to have resulted from '*the hurried burial of people plague-stricken or slain in battle*' (Hughes 1912b, 404). Investigation of some of the remains by Professor Macalister at the Museum of Human Anatomy in Cambridge concluded that they were 'of the same type as the mixed Scandinavian race still found in that district' (*op cit*, 404-405). At least one other cist burial (again, possibly early medieval) was also reputedly discovered nearby, although its location is not recorded other than being between Hyning and Levens (Hughes 1912b, 404; this may be the same site as a group of nine skeletons in cists found at an unknown location near Levens in 1867, although from the description these seem more likely to have been prehistoric; Anon 1867). A possible context for the burials at Levens can, however, perhaps be found in the Welsh heroic poetry of Taliesin, which may describe events of the 6th century AD (Clancy 1970). The poems record a battle at *Gwen Ystrat* or *Gwensteri*, thought to equate to the Winster valley, c5km to the west of Levens (Breeze 2012, 61). Another battle is also said to have been fought at *Argoed Llwyfyain*, which approximately translates as 'Leven Forest' (*op cit*, 58) with Levens in Cumbria being suggested as one of a number of possible locations (Morris 1973, 234, although he mistakenly states that Levens is in Furness). In both of these battles the native Britons were victorious and were Christians, in which case they would have had time to bury their dead in accordance with their own customs. A concentration of battles in a single strategic location, potentially controlling the landward route west into Cumbria (the Winster was also formerly the county boundary between Lancashire-north-of-the-Sands and Westmorland), is not inconceivable; the suggestion has been made that references to a single conflict during the same period at *Catraeth* (usually equated with Catterick in Yorkshire) might in fact relate to a series of battles at a single key site (Padel 2013, 139). Further evidence for activity in that period might also have been present at Castlehead, a probable hillfort near Grange-over-Sands, effectively at the southern end of the Winster valley, at which a range of finds were discovered during building work in the 18th century, many of which are remarkably similar in description to objects typically found at fortified 'royal' sites of the early medieval period in Scotland (Elsworth 2014).

3.2.6 **Medieval Period (11th century AD – 16th century AD):** much of the settlement in the local area was well-established by the beginning of the medieval period, with, as a minimum, early medieval precursors, but perhaps with its origins in the late prehistoric period. Beetham was recorded in the Domesday survey of the area in 1086 and is recorded a number of times in documents of the 12th and 13th century (Smith 1967, 66), although these provide little information about the size of the settlement at that time. A number of significant structures of medieval date do exist in relatively close proximity to the site, however, the most important of which is the parish church. As has already been seen this probably has earlier origins and seems to originally have had a different dedication. Much of the standing building is medieval though, with substantial elements dating to the 15th century (RCHME 1936, 202; Salter 1998, 22-23). Archaeological monitoring for the construction of a new extension and associated works at the church revealed *in situ* burials and unstratified human bones, some of which had apparently been disturbed during the construction of the north aisle in c1400 (Neil 2006). Some medieval pottery and a possible bell-casting pit or smelting hearth were also revealed (*ibid*). Beetham also had a chantry college

of medieval date, although this was largely demolished in 1756 and only a small part now survives in the south wall of Parsonage Farmhouse; archaeological monitoring in 1991 and 2016 found very little of archaeological interest (HER 4036; CFA Archaeology 2016). Machell describes it as ‘*formerly called the College of St Mary’s and belonged to the Monastery of St Mary’s York, but at the Dissolution in the time of Henry VIII it [passed] to the crown*’ (Ewbank 1963, 50-51). The *Beetham Repository* provides a remarkable description of it prior to its destruction in 1756: ‘*Twas a large antient Building; the Hall was open to the Roof which was part Thatch & part Slate and lighted by four Windows of Freestone and very large, & I think of the same Antiquity with the Church. A large Gothick Arch’d Doorcase lead thro’ the Screens betwixt the College with the Parsonage. Over the Screens was a Dormitory wch woud have held about 8 beds; & a Square hole out of this room look’d into the Hall. The Walls of the College were above 2 Yards thick*’ (Ford 1906, 113). There were at least two named wells in Beetham, both of which are likely to have been of medieval or earlier origin: a St Michael’s well near the church (*op cit*, 112), and an ‘Abs Well’ recorded by Machell (Ewbank 1963, 52).

3.2.7 The most pertinent feature to the site of probable medieval date is the remains of a chapel dedicated to St John, which are recorded as having been on the site at Temple Bank prior to the construction of the present house. Curiously, the chapel is not mentioned by the earliest antiquarian account of the area made by Rev. Thomas Machell at the end of the 17th century (Ewbank 1963). The earliest record of the chapel is in c1700, when ‘St John’s Chapple’ is named in the description of a boundary of land claimed by Edward Wilson of Dallam Hall (Curwen 1924, 164-165), although a St John’s Cross is also recorded in Beetham as early as 1612 (Smith 1967, 73). The most detailed early account of the site is in the *Beetham Repository*, written in about 1770, by the vicar of Beetham, Rev. William Hutton. He states:

‘On the highest Ground in the Street leading to the Hall [Beetham Hall] stands the Site of an antient Chapel dedicated to St John. Probably it went into Ruin when our present Church was built. The House, Barn &c now on the Spot have many blocks of Freestone in the Walls. The Garden is full of Human Bones, & some Years since, the late Owner dug up the Foundations of the Chapel. A little while agoe, a Mole dug up a large Amber Bead, & with it an oval piece of Silver, the Bulk nearly of a Shiling. On the One side was impress’d Our Saviour crucify’d, above the ✠ I.n.r.i. the common Motto. On the right of the ✠ a Crescent, on the Left a rising Sun. At the Bottom, the Virgin Mary in a weeping Attitude. On the other side of the Coin a Lamb with the Standard and St Andrews Cross. N.B. There is a Hole thro’ this Silver piece from which I suppose that the amber Bead was ty’d to it, & so hung round the Arm of [sic] Neck of some Deceased Person’ (Ford 1906, 96).

3.2.8 This account was printed almost *verbatim* by Nicholson and Burn, who mentioned Hutton’s account and evidently had access to it:

‘About 40 yards distant from the place where the school-house now stands there was anciently a chapel, which is said to have been dedicated to St John, and near it many human bones have been dug up in a place which is now converted into a garden. A mole some few years ago cast up a large amber bead, and with it an oval piece of silver near the bigness of a shilling. It had an hole through it, and on one side of it was impressed our saviour crucified, and these letters above the crucifix I.N.R.I. On the right thereof there was a crescent, and on the left a rising sun. At the bottom, the Virgin Mary in a weeping attitude. On the reverse, a lamb with the standard and St Andrew’s cross’ (Nicholson and Burn 1777, 223).

3.2.9 Later accounts of the chapel and any burials are limited, excepting what the Ordnance Survey maps show (see Section 4.3 above). Cornelius Nicholson also recorded the discovery of human remains in Beetham but not specifically at the site of Temple Bank and he does not mention a chapel, instead he considers them evidence for a battle having been fought in Beetham in the early medieval period: ‘[a] great number of human bones... are found in digging in almost every part of the village. It is indeed to be regretted that a further search for relics was not made when some of the modern houses were erected, on the south side of the stream, where the bones are chiefly found’ (Nicholson 1832, 23). However, this location would potentially place them close to Temple Bank. Another account in the *Beetham Repository*, specifically regarding the construction of the house at Temple Bank itself, provides further evidence:

‘On the above nam’d Ground now stands a House built by the Revd Joseph Thexton Vicar, in digging the foundation of the Building a large quantity of Human Bones were dug up, and again deposited all

together deep in the Ground, in all above half a Cartfull, also some small pieces of Silver coin were found, about the size of a Sixpence, one in the reign of Edward the Sixth plain to decipher, the other defac'd so as not to be intelligible. The coins are in the possession of me Joseph Thexton, Vicar' (Ford 1906, 97). As is discussed below, Joseph Thexton became vicar at Beetham in 1811 and so this work cannot have been carried out before that date (see Section 4.5.2 below).

3.2.10 **Post-medieval Period (16th century AD – present):** the map evidence (see Section 3.3) demonstrates that the general area had reached its present state of development by the 19th century and it is likely that relatively little changed in the area immediately following the end of the medieval period, although a grammar school was established in 1663 and rebuilt in 1827 (Winchester 2016, 50). Already connected to a number of industries such as limestone quarrying, fishing, and farming, Beetham became home to a substantial paper mill that remains today, although its trade connections were damaged by the coming of the railway, which led to the demise of the nearby port at Arnside (*ibid*).

3.2.11 The house at Temple Bank was apparently built by the Rev Joseph Thexton (Ford 1906, 97), who became vicar of Beetham in 1811 (Curwen 1926, 250).

3.3 Previous Archaeological Work

3.3.1 As already discussed there have been a number of discoveries of archaeological interest made at Temple Bank in the 18th and 19th centuries. However, only a single previous piece of modern archaeological work has been carried out at the site: a watching brief during the excavation of footings for an extension (Minerva Heritage 2009). This revealed a ditch of probable medieval date, as well as later features, and some human bone was also recovered.

3.3.2 Immediately prior to the watching brief a desk-based assessment was carried out by Greenlane Archaeology (2021). In addition, a ground penetrating radar survey was carried out across various parts of the garden by Jim Glenister of NW Heritage, at the request of Claire Asplin. This revealed a range of features, none of which were obviously of archaeological interest but some of which ultimately did appear to align with elements of the graves found in the retaining wall foundation trench (*Appendix 4*).

4. Building Recording

4.1 Arrangement and Fabric

4.1.1 The building comprises a single linear block orientated north-west/south-east alongside Stanley Street to the south-west. It is extended at the north-west end by additional buildings that are not included in the building recording, and two small outshuts on the north-east side that are included (Plate 6). The attached structures to the north-east incorporate a large underground tank with a brick-built semi-circular arch, which was discovered during renovation (Plate 7). It is built into the slope on the north-east side and so has two floors (referred to as upper ground floor and lower ground floor). It is constructed entirely in local limestone laid in rough courses and with thick lime mortar, although details such as quoins and lintels are in more neatly dressed blocks. Some fragments of pale yellow or buff sandstone have been utilised, particularly in the south-west elevation. The roof is grey slate laid in diminishing courses finished with sandstone ridge tiles, with bases for probable finials at both ends.



Plate 6 (left): Attached buildings at the north-west end of the barn, viewed from the north-east

Plate 7 (right): Underground tank exposed to the north-east of the barn, viewed from the east

4.2 External Elevations

4.2.1 **North-east:** this has a large central wagon doorway with a flat voussoir arch in dressed limestone with double plank and batten doors (Plate 8 and Plate 9). To the north-west is a small window with a rough timber lintel and sash casement of four lights (two over two). The wagon doorway is accessed by a raised ramp finished with rounded cobbles, either side of which the ground drops away, and there is a small mono-pitch outshut roof either side, the south-east one of which covers a narrow passage, within which is small window with a four-light casement, one light hinged, a small hatch with a plank and batten door, stone lintel and sill, and a doorway to the north-west with a plank and batten door. The north-west outshut is accessed by a short flight of steps (Plate 10) and has a single doorway within a timber plank wall providing access to **LF6**.



Plate 8 (left): The north-east external elevation, viewed from the east



Plate 9 (right): The wagon doorway in the north-east elevation, viewed from the north-east



Plate 10: North-west outshut on the north-east external elevation, viewed from the east

4.2.2 **South-east:** this comprises the gable end of the building, and is largely plain, apart from the dressed quoins at the ends (Plate 11). There is a window on the south-west side of the lower ground floor with a heavy stone lintel and four-light timber casement. The whole elevation has numerous metal spikes and nails inserted into it, presumably to support wires for climbing plants, and there is a metal vent low down near the centre. At the apex is a circular opening, apparently in dressed stone and presumably originally an owl hole, projecting through which is an iron pipe.



Plate 11 (left): The south-east external elevation, viewed from the south-east

Plate 12 (right): The south-west external elevation, viewed from the west

4.2.3 **South-west:** this is effectively the front elevation, facing onto Stanley Street (Plate 12). It is two storeys, with three pedestrian doorways on the lower ground floor each with modern plank doors, the south-east with four lights over, and a further wagon doorway at the north-west end with a flat voussoir arch in limestone, again with a modern plank door with six lights in the top. At upper floor level there is a single central opening with a four-light casement and concrete lintel. There are two rows of throughstones at the upper ground floor level.

4.2.4 **North-west:** this is largely obscured by the adjoining structures but forms the opposing gable end of the building (Plate 13). It is essentially plain, apart from a circular owl hole formed by dressed limestone at the apex.



Plate 13: The north-west external elevation, viewed from the east

4.3 Internal Detail

4.3.1 **Upper Ground Floor Room 1 (UF1):** this comprises just a single room, although a small subdivision has been made in the north corner, using modern planks attached to a stud partition, with a

doorway with a plank and batten door in the south-east side. The space inside is fairly plain, although at the time of the building recording it was largely obscured by items stored within. The walls are finished with rough limewash and there are doorways to the north-east and south-west. The floor is covered by modern sheets of chipboard or similar. It is open to the roof, which is supported by two trusses of simple tie-beam type, the principal rafters overlapping at the apex (south-west on north-east), and all the timber is sawn. Some joists have been added at the north-west end with boards placed on top to form a basic loft. There are three purlins per pitch plus a ridge plank and the slates have the remains of some plaster sarking attached.



Plate 14 (left): General view of Room UF1, with the inserted stud walling on the right, from the south-east

Plate 15 (right): Example of a truss in Room UF1, viewed from the south-east

4.3.2 The lower ground floor is split into three main rooms, with three smaller rooms on the north-east side, one contained within a separate outshut (**LF 6**), the others comprising a pair of small rooms within the footprint of the main building (**LF4-5**), accessed via a small passageway covered by a mono-pitch roof. The rooms are numbered from south-east to north-west (**LF1-LF6**).

4.3.3 **Lower Floor Room 1 (LF1)**: this comprises the south-easternmost room and has a cobbled floor and ceiling joists supported by two beams running north-west/south-east, both finished with a stop chamfer. The walls are finished with plaster and painted two shades of brown, divided by a painted dado rail. Below the south-west beam is a timber stall of stud and plank construction set against a post at the south-east end and topped with iron bars (Plate 16). Within it is a timber hay rack and associated trough fixed to the wall (Plate 17). Attached to the north-east side is a corner sink (Plate 18) and in the north corner a separate timber trough is fixed to the wall with an iron hay rack above connected to a timber chute to the floor above (Plate 19). There is also a window in the south-east elevation with splayed jambs and a four-light timber casement.



Plate 16 (left): Stall on the west side of Room LF1, viewed from the south

Plate 17 (right): Hay rack and trough within the stall on the west side of Room LF1, viewed from the south-east



Plate 18 (left): Sink on the north-east side of the stall in Room LF1, viewed from the east

Plate 19 (right): Trough in the north corner of Room LF1, viewed from the south

4.3.4 Lower Floor Room 2 (LF2): this is the central of the main ground floor rooms and has a cobbled floor and ceiling joists supported by three north-west/south-east beams, all of which are roughly chamfered (Plate 20). The walls are finished with rough plaster and limewash. A rough structure of four posts supporting horizontal rails, open to the north-west, is located on the south-west side of the room. It is otherwise relatively plain, with two doorways to the south-west, with timber lintels and modern doors (Plate 21), and a doorway to the north-west with a timber lintel and (reused?) six-panel door (Plate 22).



Plate 20 (left): General view of Room LF2 from the south-west

Plate 21 (right): Doorways on the south-west side of Room LF2, viewed from the north-east



Plate 22: Doorway on the north-west side of Room LF2, viewed from the south-east

4.3.5 **Lower Ground Floor Room 3:** this is the north-westernmost of the main ground floor rooms and has a cobbled floor with a channel along the north-west side, constructed from yellow sandstone, leading towards the door to the south-west (Plate 23). The ceiling joists are supported by three beams north-west/south-east all of which are stop chamfered (Plate 24). The room is otherwise relatively plain, with a doorway with a plank and batten door in the north-east elevation and another doorway with a six-panel door in the south-east, although it was largely obscured and difficult to access at the time of the recording.



Plate 23 (left): The channel on the north-west side of Room LF3, viewed from the south-east



Plate 24 (right): General view of Room LF3 from the south-west

4.3.6 **Lower Ground Floor Room 4:** this could not be readily accessed during the building recording but it was apparently entirely plain internally, with limewashed walls, a plaster ceiling and floor obscured by debris.

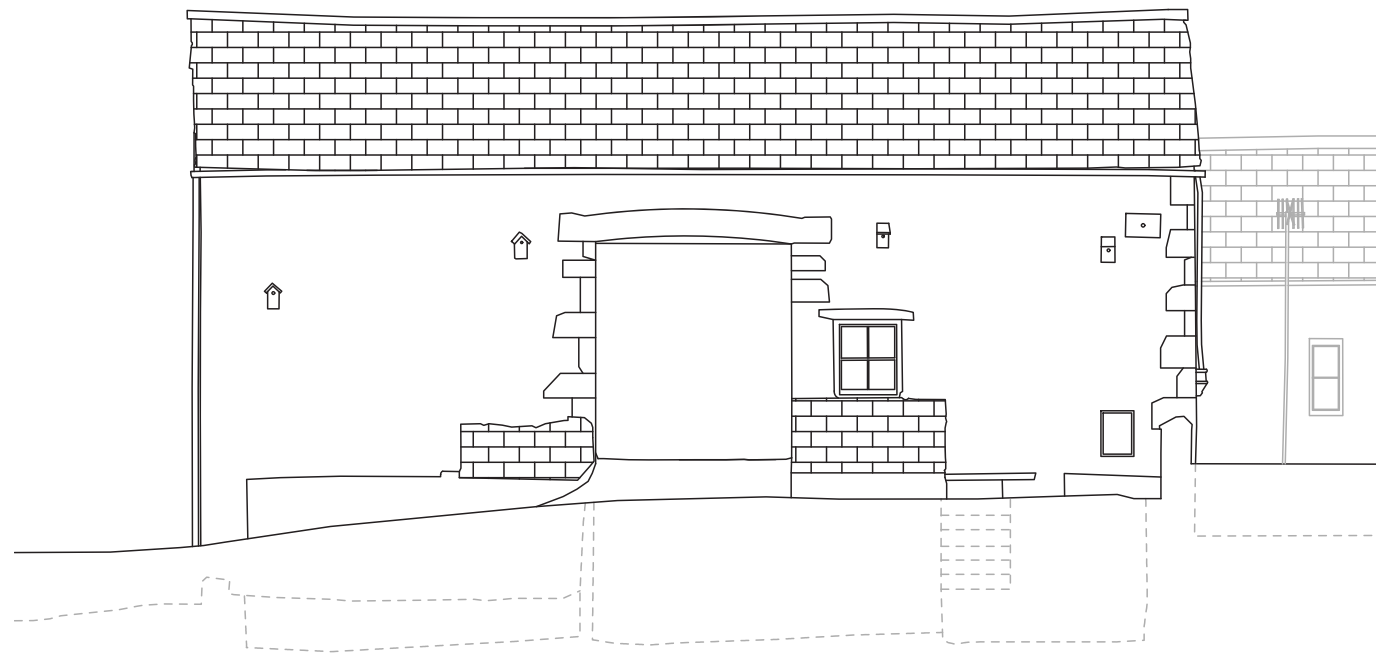
4.3.7 **Lower Ground Floor Room 5:** this had a plaster ceiling and plastered walls and the remains of a timber toilet bench along the south-east side but was otherwise plain (Plate 25).



Plate 25: Room LF5, viewed from the north

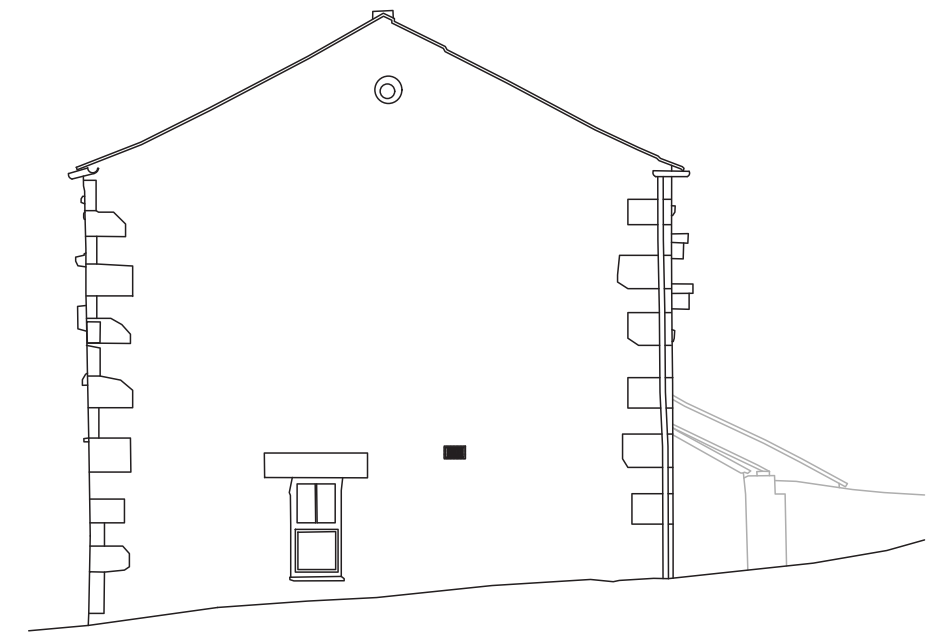
4.3.8 **Lower Ground Floor Room 6:** this was evidently originally open on the north-west side, this space now filled by a timber plank wall. It is entirely plain inside, with a concrete floor, limewashed walls and open to the mono-pitch roof.

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NORTH-EAST EXTERNAL ELEVATION

Key: — building unrecorded
▨ cross-sectional building
- - - obscured

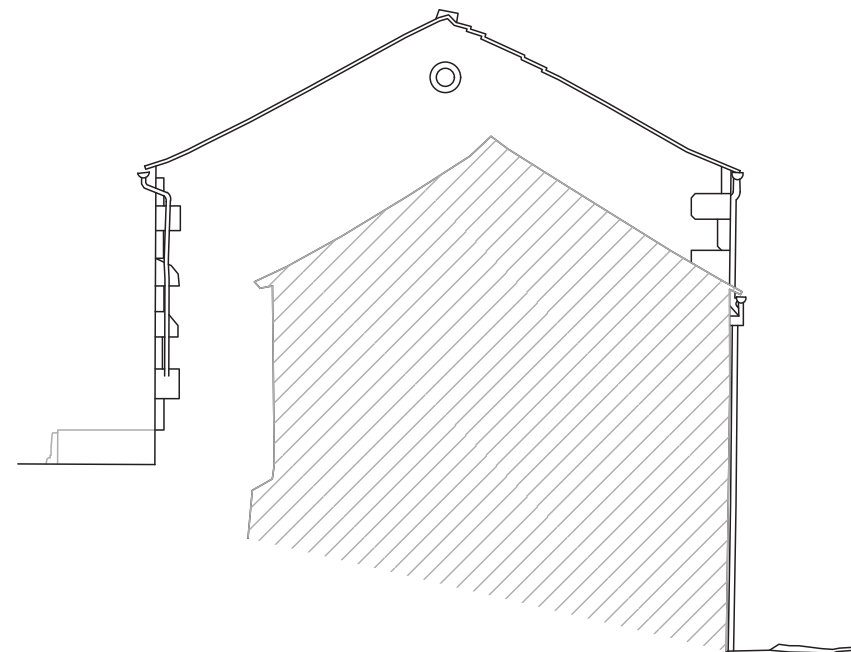


SOUTH-EAST EXTERNAL ELEVATION



SOUTH-WEST EXTERNAL ELEVATION

0 5m



NORTH-WEST EXTERNAL ELEVATION

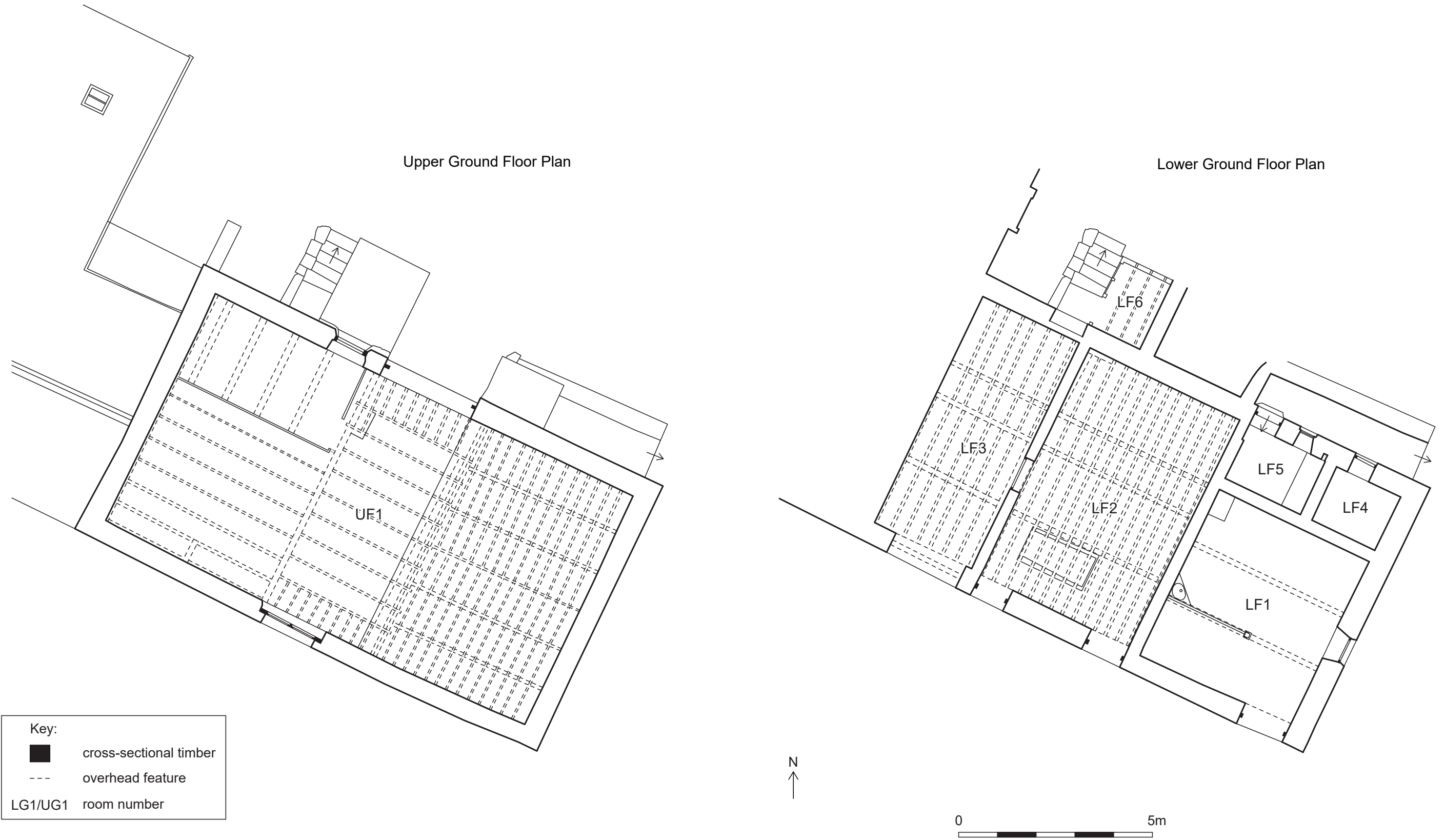


Figure 3: Lower ground and upper ground floor plans of the barn

5. Watching Brief

5.1 Introduction

5.1.1 The watching brief monitored two areas, as outlined on the cover sheet: the excavation of footings for a new garage on the north side of the site (Plate 26), and the excavation of footings for a new retaining wall and associate landscaping within the garden to the south of the garage immediately in front (north-east) of the house (Plate 27). The former was undertaken on the 23rd and 24th February 2022, and the latter periodically between the 11th April 2022 and the 21st June 2022. In addition, the section formed by the rebuilding of an existing retaining wall to the north-east of both the garage and the new retaining wall was also examined, photographically recorded and a section drawn across it linking it to the excavation for the new garage foundations.



Plate 26 (left): General view of the area of the garage prior to excavation from the south-east

Plate 27 (right): General view of the affected area of the garden from the north-west

5.2 Results

5.2.1 **Garage:** the garage foundations comprised a single trench up to 1m wide forming an approximate square. The overlying topsoil deposit (**100**) comprised soft dark brown silt up to 0.3m thick with 20% rounded cobbles. Beneath this, on the south-west side, was firm pale brownish yellow sandy silt (**101**), which was evidently part of the natural. This had been cut into on the south-west side, forming two very evident steps each 0.2m tall (Plate 28). The north-west return of the trench had much less topsoil as this had been partially replaced with a loose yellowish grey sandy gravel (**102**) forming the drive surface on top of **100**. At the north corner of the trench there was a substantial cut feature [**104**] with shallow sides at $c45^\circ$ extending out of the north-east and south-west sides of the trench but at least 2m long. It had a single fill (**103**), comprising a dark greyish brown silt with up to 75% angular cobbles, articulated bone, pottery and large amounts of smithing waste, up to 0.5m deep. Within the north-east side of the footing a substantial deposit was revealed below **100** and **102** comprising soft dark orangey-brown sandy silt at least 0.6m thick with 2% rounded cobbles and up to 60% rounded gravel in places (**105**). The south-eastern footing had a similar range of deposits to the south-west, although deposit **105** was also present below **100**. In the south corner there was a small area of relatively loose boulders (limestone and volcanic), with some lime mortar, in the top of **100**. This was presumably the remains of a terraced garden feature.



Plate 28 (left): Sequence of deposits exposed along the south-west side of the garage foundations, showing the steps cut into the natural, viewed from the north-east



Plate 29 (right): Section through pit 104 on the north-west side of the garage foundations, viewed from the south-east



Plate 30 (left): Deposit 105 revealed in the north corner of the garage foundation, viewed from the west



Plate 31 (right): Sequence of deposits exposed along the south-east side of the garage foundations, viewed from the west



Plate 32: Stones and lime mortar on top of deposit 100 in the south corner of the garage foundation, viewed from the north-east

5.2.2 New Retaining Wall: this primarily comprised a single straight trench 0.6m wide running north-west/south-east and up to 1.3m deep against the slope to the south-west, although it had curving arms at both ends that were not as deep. It also involved the removal of part of the former sloping garden to the north-east in order to form a level area, although this was not excavated to as great a depth. The uppermost deposit of topsoil comprised soft dark greyish brown silt up to 0.2m thick (**106**). This lay on top of a buried soil between 0.3m and 0.5m thick, comprising mid-brown soft silty clay (**107**). This was in turn cut by a large pit feature [**109**] with a shallow U-shaped profile extending approximately 6.5m north-west/south-east and a least 6m north-east/south-west (its full extent was not revealed to the north-east due to the sloping ground). This was filled by a single deposit, comprising soft pale-yellow sand up to 0.6m thick (**108**), presumably re-deposited natural similar to **101**. Below **105** and just cut into by **109** was a gritty sandy clay with 10% rounded gravel about 0.1m thick (**110**). A row of five graves had been cut into or placed on top of this, each orientated approximately north-west/south-east, with their heads to the north-west, along the line of the trench. These are described below from the south-west end of the trench to the north-east, although this is not the order in which they were excavated.

5.2.3 Grave 1: a double or probably triple burial in a roughly oval cut approximately 1.8m long and at least 1m wide and 0.3m deep [**112**], filled with material similar to **110** but with more rounded pebbles (**111**) and rounded boulders edging the cut. A central body (**SK1**) was laid supine with its arms across its body and feet close together, and so was perhaps bound by a shroud. It was mainly intact but its ribs, spine, and pelvis had degraded and were not present (Plate 33 and Plate 34). A second partial burial (**SK2**) was located to its south-west. This too was probably buried supine but only parts of its legs remained. A probable third burial (**SK3**) was also revealed in the form of parts of a single arm laid across **SK1**, extending from the edge of the trench to the south-west (Plate 35).



Plate 33 (left): Grave 1 showing Skeletons 1 and 2 following excavation, viewed from the south-west

Plate 34 (right): Grave 1 showing Skeletons 1 and 2 following excavation and section, viewed from the north-east



Plate 35: Grave 1 showing the arm from Skeleton 3 following partial excavation, viewed from the south-west

5.2.4 **Grave 2:** this comprised two partial burials in a shallow cut a little over 0.2m deep [117] of indeterminate plan filled with similar material to 111 (116). Within it **SK6**, to the south-west, was evidently buried face-down (prone), apparently with its knees bound up to its chest so almost in a crouched position placing its head near its pelvis. **SK7**, to the north-east, was laid supine but turned slightly to the south-east, its right arm across its body and knees and feet closely bound together.



Plate 36 (left): Grave 2 showing Skeletons 6 and 7 and the trench section, viewed from the north-east

Plate 37 (right): Grave 2 showing Skeletons 6 and 7, viewed from the south-west



Plate 38 (left): Grave 2 showing Skeletons 6 and 7 and the trench section, viewed from the east

Plate 39 (right): Grave 2, skull of Skeleton 7, viewed from the north-east

5.2.5 **Grave 3:** this comprised a single burial (**SK8**), again in a shallow cut [**119**] up to 0.3m deep and of indeterminate plan with a single fill (**118**) again similar to **111** but apparently with mortar adhering to some of the pebble. The body was laid prone or on its side, facing south-west and partially extending into the section. A second burial (**SK11**), comprising long bone fragments and a skull, was also exposed on the north-east side of the foundation trench and partially excavated. This was partially associated with a deposit of loose rounded cobbles (**121**), probably similar to fill **111**.



Plate 40 (left): Grave 3 showing Skeleton 8 and the trench section, viewed from the south-east

Plate 41 (right): Grave 3 showing Skeleton 8, viewed from the south-east



Plate 42 (left): Bones representing Skeleton 11, possibly part of Grave 3, viewed from the south-west

Plate 43 (right): Skull, possibly part of Skeleton 11, viewed from the west

5.2.6 **Grave 4:** this comprised a double burial apparently laid below a small cairn constructed from loose rounded pebbles and cobbles covering an area of at least 1m north-east/south-west by 1.5m north-west/south-east and little more than 0.1m thick (**113**). Below this the burials were deposited in a gravelly sandy clay similar to **111** (**114**) but not apparently in a grave cut of any form. The north-eastern burial (**SK4**) was laid on its side facing to the south-west, while the south-western burial (**SK5**) was laid on its side facing north-east.



Plate 44 (left): Grave 4 showing Skeletons 4 and 5, prior to removal of stones (113), viewed from the north-east



Plate 45 (right): Grave 4 showing Skeletons 4 and 5, prior to removal of stones (113), viewed from the south-west



Plate 46 (left): Grave 4 showing Skeletons 4 and 5, following the removal of stones (113), viewed from the north-east



Plate 47 (right): Grave 4 showing Skeletons 4 and 5, following the removal of stones (113), viewed from the south-west

5.2.7 **Grave 5:** this comprised another double burial also laid in a shallow cut up to 0.3m deep but of indeterminate form [122]. This was filled by a loose material (120) similar to 111 but apparently with lime mortar adhering to some of the pebbles. The south-western body (SK9) was laid supine with its arms crossed, while the north-eastern body (SK10) was very fragmentary and apparently truncated, but perhaps slightly flexed.



Plate 48 (left): Grave 5 showing Skeletons 9 and 10 after initial cleaning, viewed from the north-east

Plate 49 (right): Grave 5 showing Skeletons 9 and 10 following further cleaning, viewed from the north-east

5.2.8 At the north-west end of the trench, beyond the burials, a large U-shaped cut [**124**] was revealed, below **106** and cutting through all of the lower deposits. This was filled with loose angular boulders in a soft greyish brown silt (**123**) and was 0.5m deep and 1.7m wide. It had clearly been disturbed at the top and partly dug into, and a plastic sack had been placed on top. Beyond this the trench turned slightly to the east, exposing more of **124**. Beyond this deposit, **107** was very deep (although probably corresponding with deposit **105** revealed in the garage foundations) over the underlying natural, and a thin layer (**125**), no more than 0.2m thick, containing numerous cockle shells, was revealed at their intersection.



Plate 50 (left): Feature 124 revealed in section, viewed from the north-east

Plate 51 (right): Deposits in the north-east return of the foundation wall trench, viewed from the east

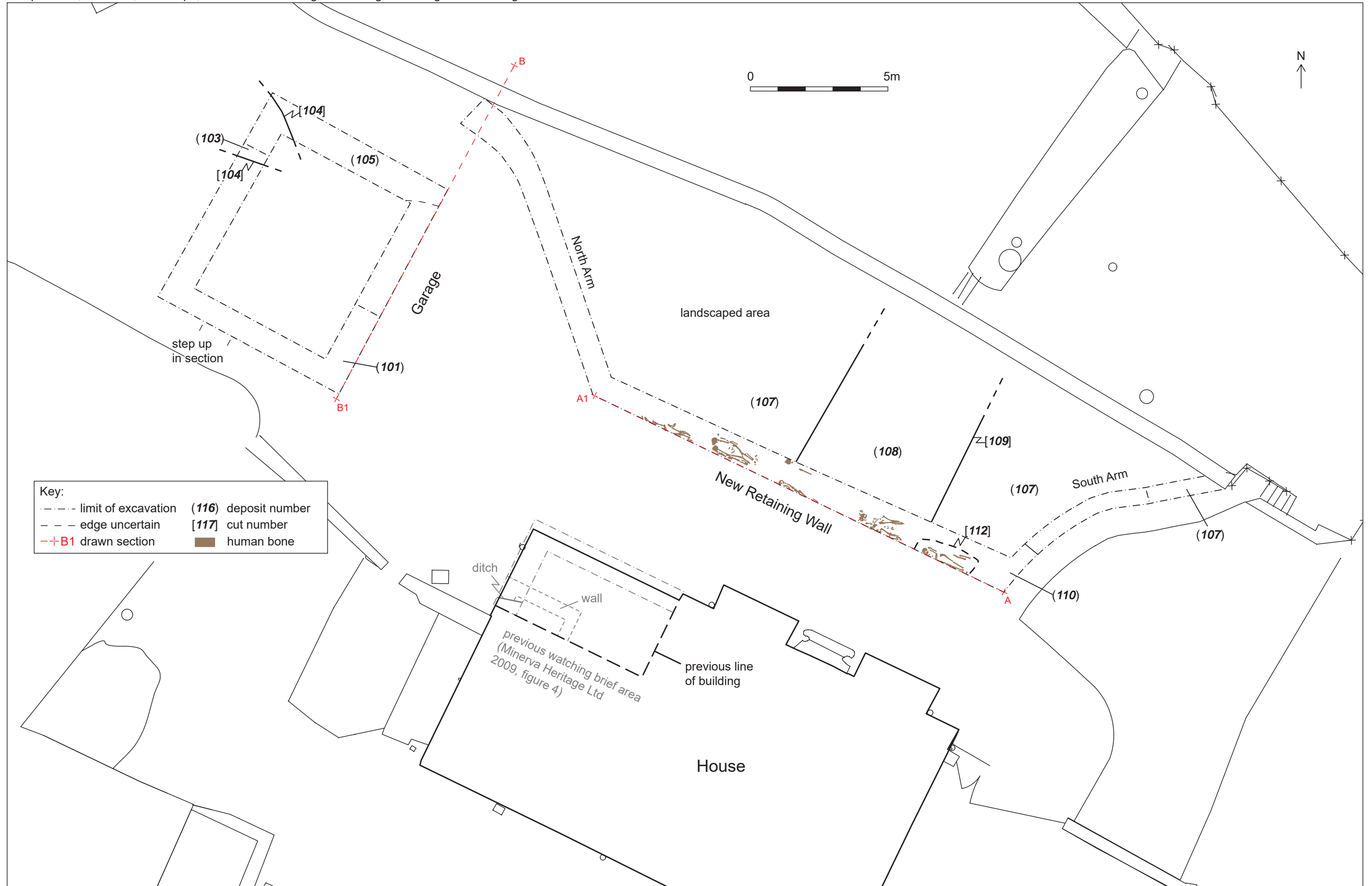


Figure 4: Plan of the watching brief area

NORTH-WEST FACING SECTION B-B1 IN TWO PARTS, INCLUDING TOPOGRAPHY IN GARAGE

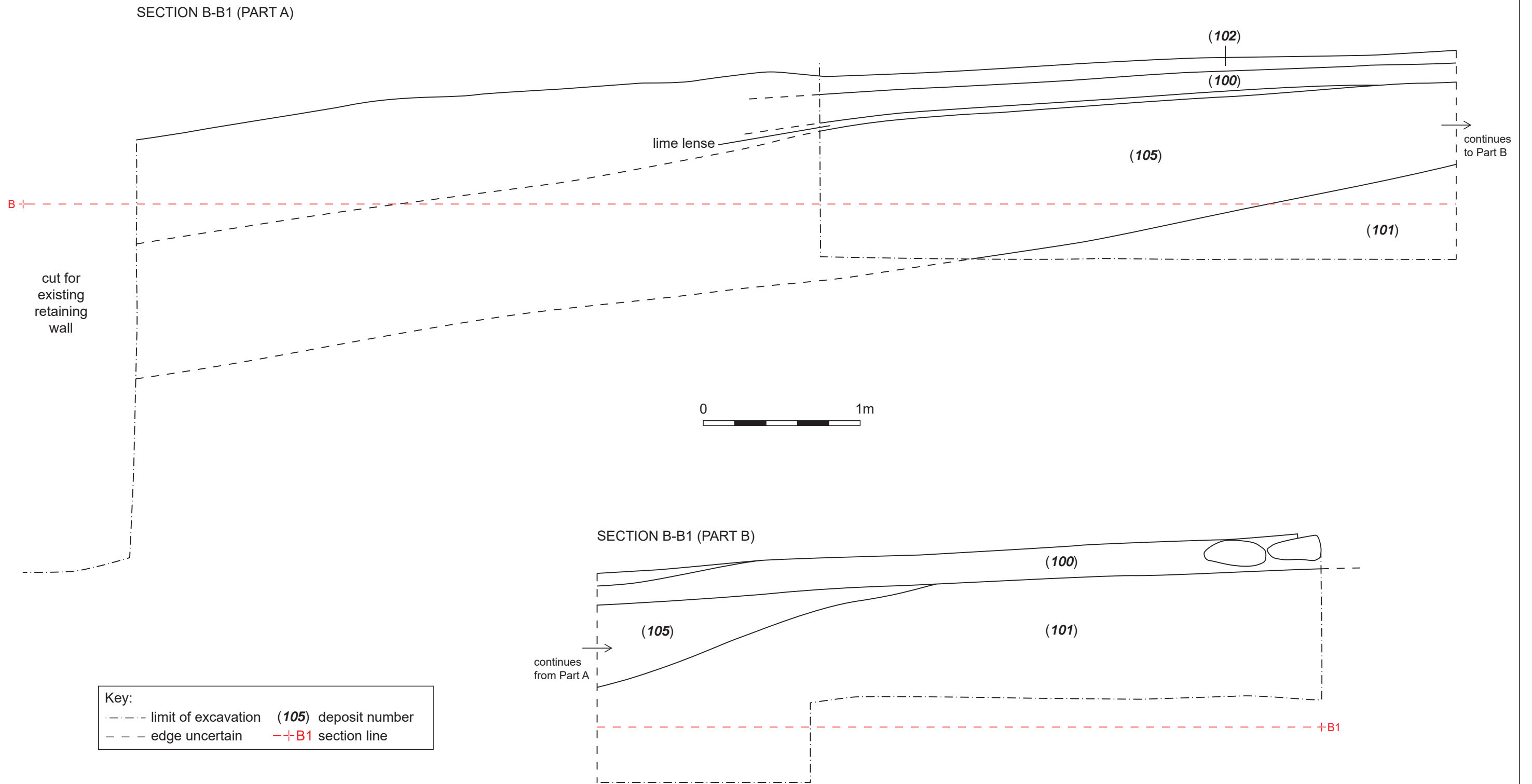
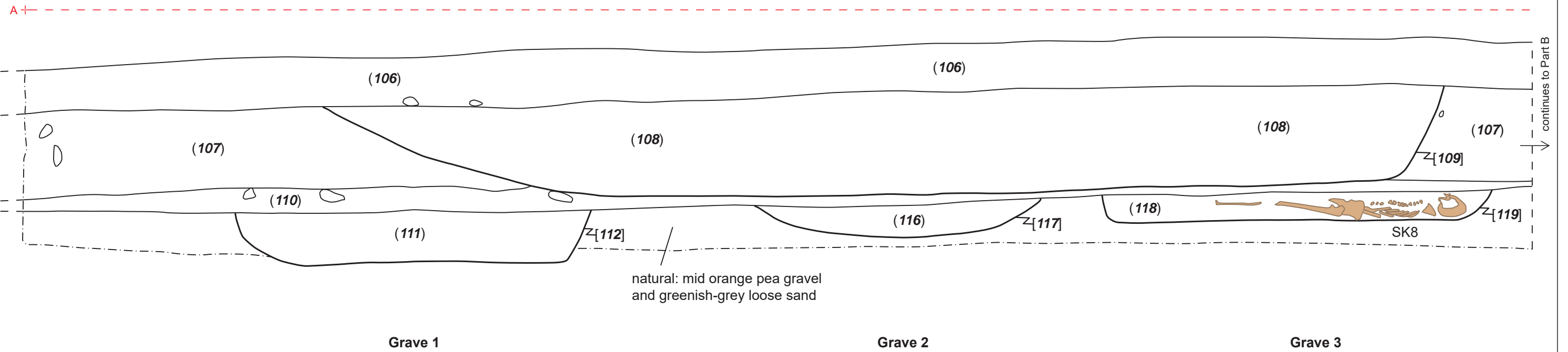
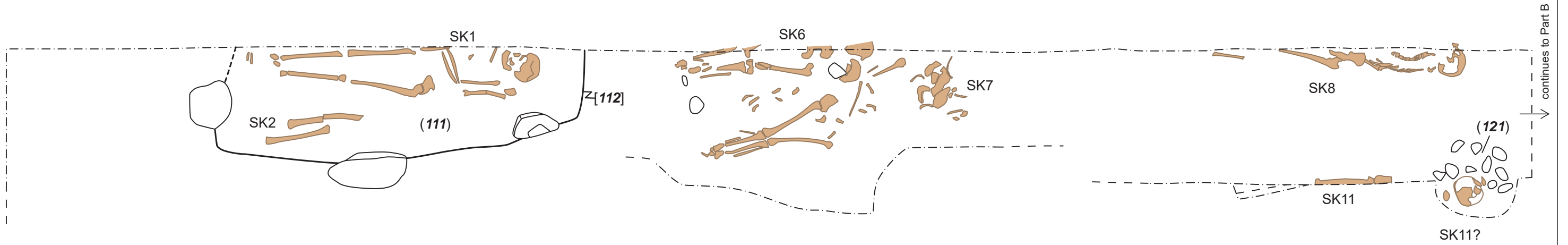


Figure 5: North-west facing section including topography in garage

NORTH-EAST FACING SECTION A-A1 (PART A) - SOUTH-EAST END



PLAN (PART A) - SOUTH-EAST END



trench extends into shallow excavation of landscaped area

Key:	
--- limit of excavation	(116) deposit number
- - - edge uncertain	[117] cut number
-+A1 section line	SK8 skeleton number
■ human bone	Grave 1 grave number



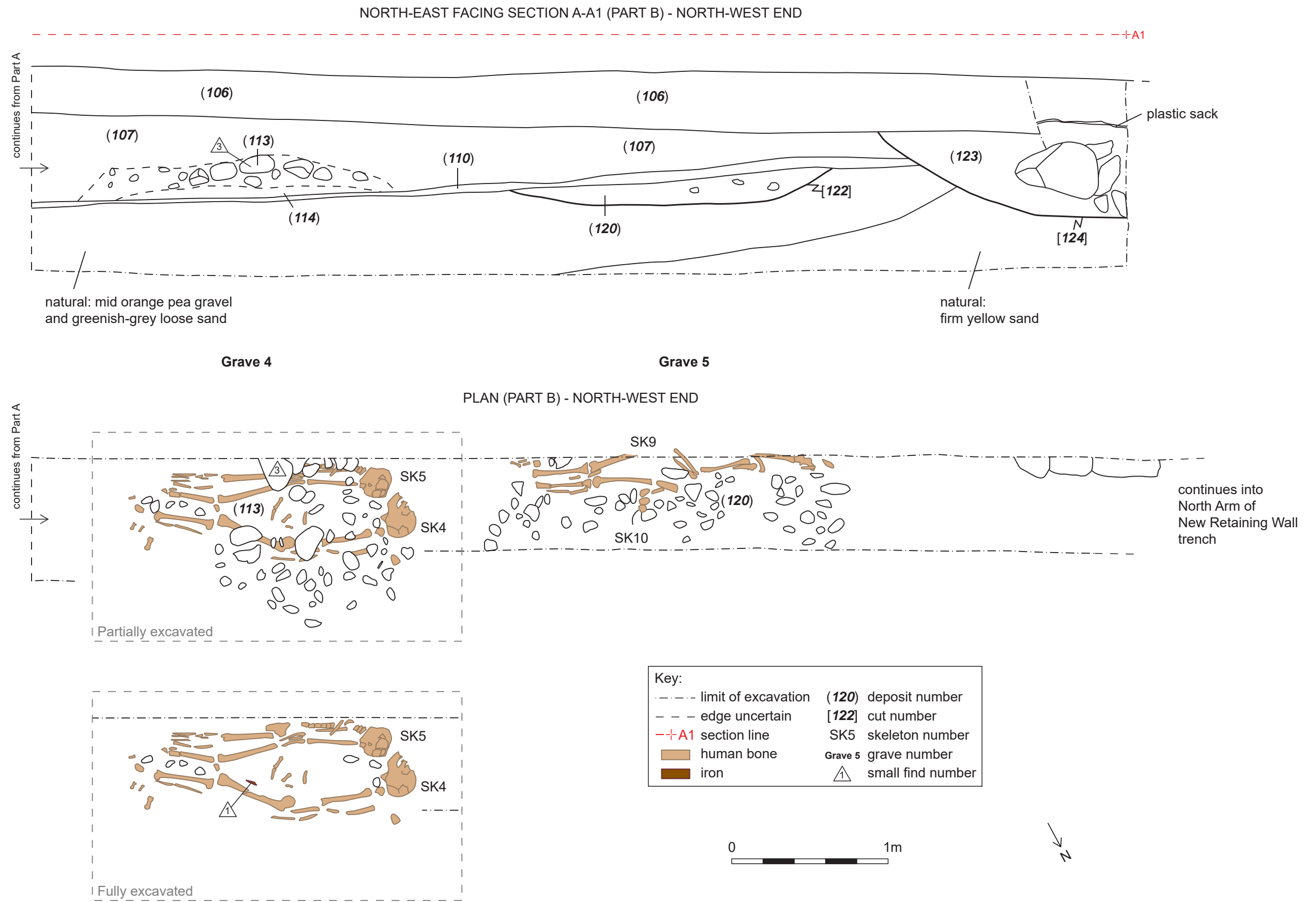


Figure 7: North-east facing section and plan, north-west end

5.3 Finds

5.3.1 **Introduction:** a total of 238 individual finds were recovered during the watching brief, plus human bones representing the remains of at least 11 individual burials and a further 397 disarticulated fragments, and 995 fragments of animal bone. All of the finds are discussed by type below and a complete list of all the finds is provided in *Appendix 3*, with the exception of the human and animal bone, which are dealt with in separate specialist reports (*Appendix 5* and *Appendix 6*). In addition, two metal objects associated with burials, Small Finds 1 and 2 are further discussed in the conservation report (*Appendix 7*). A considerable number of other unstratified finds were also recovered from the topsoil but these have not been included in the report. Some unstratified bone recovered during other elements of building work around the site, not relating to the watching brief, was also collected by Claire Asplin in order to confirm it was not human. This has been included in *Appendix 6* (as 'patio' and 'water tank ex wall') but can otherwise be discounted.

5.3.2 In addition, the spoil was scanned with a metal detector and a range of finds recovered. Most of these were quite modern or not readily datable, and of limited interest. The base metal assemblage comprised: a number of early modern buttons, hooks and other fasteners (predominantly made from copper alloy and, in some cases, tin); a pocket watch made by Thomas Russell & Sons at Liverpool; a copper alloy thimble; 18th century copper alloy openwork buckle (still retaining the copper alloy tongue and iron pin); several ring and ring fragments; a probable copper or tin alloy knife plate; seven coins and one *jetton*. The coins comprised: a copper alloy token farthing of James I (1603-1625), two silver issues (probably William III, dating from the late 17th century) which were bent into "love tokens", a halfpenny of George II (1738), a penny (1806) and a twopence of George III dating from the 1790s ("cartwheel penny") and a penny of Victoria I (1862). The *jetton* is an early post-medieval copper-alloy *jetton* of Master Hans Krauwinckel II, dating to 1586-1635. It is of rose/orb type, with HEIT ROTT MORGEN DOTT (transl. "today red, tomorrow dead") on the obverse and HANNS KRAVWINCKEL IN N on the reverse (Mitchiner 1988, no. 1585). It was struck in Nuremberg.

5.3.3 **Stone:** a single stone artefact was recovered during the watching brief; an irregularly shaped, rounded and probably water-worn cobble, probably of Borrowdale volcanic stone, from the surface of deposit **113**, the rough cairn covering Grave 4 (Small Find 3; see Figure 7). This was otherwise unremarkable except for a range of apparently intentional lines scored into both sides, in particular the rougher underside, as it was discovered. The purpose of these is unclear; those on the upper side primarily comprise a range of straight lines intersecting at right angles, with some smaller crosses evident (Plate 52). It is possible some of those on the underside are part of a mass dial (Matt Champion pers comm) or even depicting a creature of some sort (Plate 53). Dating this object is difficult but it is probably medieval or earlier.



Plate 52 (left): Upper side of stone from context 113 (Small Find 3)

Plate 53 (right): Lower side of stone from context 113 (Small Find 3)

5.3.4 Medieval pottery: in total 13 fragments of medieval pottery were recovered, the majority (12) from context **107**, with a further one from the shell midden (**125**). These range in date from earlier types such as gritty and sandy ware, which are 12th to 14th century, to later reduced grey wares similar to fabrics known to have been made in Silverdale, which are 14th century to at least 17th century. All of the fragments are clearly residual in post-medieval contexts, but they demonstrate that the site was in use in the medieval period, although such a small quantity of pottery could have arrived as part of midden material brought from elsewhere.

5.3.5 Post-medieval pottery: by far the largest portion of the artefactual finds, 190 or almost 80% of the total, comprised post-medieval pottery, ranging in date from the 17th to the early 20th century. They comprised the typical types found in the region, with large amounts of course red earthenware representing functional household items such as crocks, pancheons and storage jars present, and also more polite tablewares including earlier varieties such as creamware and pearlware, and transfer printed white earthenware making up much of the rest. The vast majority was recovered from the topsoil (**100** and **106**) and the buried soil (**105** and **107**), and no doubt arrived at the site as rubbish from midden heaps incorporated into cultivation soils as fertiliser, either from buildings on the site or nearby or from further afield. Some represent the deliberate deposition of rubbish, in pit feature **104** for example, or as part of midden **125**.

5.3.6 Clay tobacco pipe: a small number of clay tobacco pipe fragments, 15 in total, was recovered from across the site, typically in the topsoil and buried soil deposits. These are likely to have been deposited accidentally or as rubbish with the pottery. Two were recovered from the fill of pit **104**, again probably deposited as rubbish, while one was found in context **107** in close proximity to Skeleton 4/5; the latter fragment is likely to be intrusive. The clay pipe ranged from the 17th to 19th century in date.

5.3.7 Post-medieval glass: only six fragments of post-medieval glass were recovered during the watching brief: three from the topsoil/buried soil deposits, one from deposit **106**, and two from the shell midden **125**. The latter fragments were relatively early, 17th/18th century in date, while those from topsoil **100** were much later.

5.3.8 Metal: only five metal objects were recovered during the watching brief, a piece of folded lead from topsoil **100**, a broken hinge from the fill of pit **104** (**103**), and a corroded strip of iron possibly a nail shank from context **108**. All of these finds are difficult to date but are probably post-medieval. In addition, part of the shaft of an iron nail or pin was recovered from the fill of Grave 4 (**114**; Small Find 1) and a thin

strip of copper alloy was recovered from the fill of Grave 3 (**118**; Small Find 2) (see *Appendix 7*). Again, neither of these is easy to date, and the purpose is also difficult to establish.

5.3.9 **Shell**: a sample of shell was retained from the shell midden deposit (**125**) and predominantly comprised cockle shell and some mussel as well as terrestrial snail types. Samples sieved from selected areas, such as the chest cavity of SK1 and around SK2 also recovered large amounts of terrestrial snails (see *Appendix 6*).

5.3.10 **Industrial residue**: five fragments of industrial residue were recovered in total, all ironworking debris, probably from smithing. Although only a small sample (four fragments) was retained from what was present in context **103**, the light weight and aerated nature of these suggests they derived from smithing, while a large and heavy lump from context **105** probably also derives from iron smithing and may represent a smithing hearth base. The large quantity present in **103** is certainly suggestive of waste material from a blacksmith's workshop in the immediate vicinity, probably dumped into pit **124** alongside a range of other materials.

5.3.11 **Ceramic building material**: two fragments of possible ceramic building material, apparently lumps of pale off-white daub, were recovered from context **113**. These are likely to have derived from a nearby building as such material was used in the construction of internal walls and for wall finishes. It is difficult to date but likely to be medieval or later.

6. Discussion

6.1 Building Recording – Results

6.1.1 The information collected in the earlier desk-based assessment combined with the building recording work on site makes it possible to define two phases of development within the building.

6.1.2 **Phase 1 (late 18th-early 19th century):** the map evidence shows that the barn certainly existed by at least 1839, and stylistically it is a good example of a true bank barn (see Brunskill 2002, 105-110), designed to allow the threshing, processing and storage of crops on the upper floor and the housing of animals, typically cattle, on the lower floor. In the case at Temple Bank, the location at a domestic house rather than a farm might suggest that the lower floor was used more as stabling, and certainly it is evident that this was the case at the south end. The building is therefore an odd combination of agricultural features and more domestic elements, such as the toilet in Room LF5 and associated room to the south (**LF4**), and the other outshut (**LF6**). The *Beetham Repository* suggests that a barn and house existed before the current house (Ford 1906, 96; see *Section 3.3.7*) so it is possible that it was originally constructed to serve a more agricultural or estate purpose, before being adapted to suit the current house built sometime after 1811.

6.1.3 **Phase 2 (late 19th – early 20th century):** assuming some of the more domestic features already described were not later alterations, and there was no obvious evidence within the building that they were, later changes seem to have been relatively minimal. These include the addition of a timber partition in the north-east corner of Room UF1 and the addition of a timber partition to form a north wall to Room LF6, making it fully enclosed.

6.2 Building Recording – Significance

6.2.1 The barn at Temple Bank represents a relatively unusual and quite well-preserved version of a bank barn, a structure typical across Cumbria. The presence of domestic features alongside the more traditionally agricultural elements normally seen in buildings of this type is of particular interest and undoubtedly reflects its association with the large house at Temple Bank built in the early 19th century.

6.3 Building Recording – Conclusion

6.3.1 The building recording has provided a detailed record of the structure, preserving it 'on paper', and providing another interesting example to add to the wider understanding of such buildings in the region.

6.4 Watching Brief – Results

6.4.1 The watching brief revealed a remarkable range of deposits and features, most significantly the collection of *in situ* human burials and human bone found scattered throughout several other contexts. These prove the earlier accounts of human remains been discovered on the site were accurate, and add considerable credence to the suggestion that there was formerly a chapel on the site. The well-defined sequence of deposits allows the identification of seven phases of development of the site.

6.4.2 **Phase 1 (natural geology):** the initial excavation of the garage footings demonstrated that the raised ground on which Temple Bank is located is comprised of two principal deposits: a firm pale yellow sand (**101**) overlying mid-orange gritty sandy clay. The upper disturbed part of this (**110**) was encountered and elsewhere it had been cut into by later deposits. These deposits presumably developed at the end of the last Ice Age, with the mound on which Temple Bank is situated representing a large drumlin, with **101** having developed primarily on the west side.

6.4.3 **Phase 2 (medieval?):** cut into the natural was a row of four graves (Graves 1-3 and 5); Grave 4 was apparently laid on top of the resulting ground surface **110**. Of the excavated graves all had shallow cuts and were approximately oval in plan, although the complete plan of the cut was difficult to ascertain in most cases and only obvious in section. The 11 *in situ* burials that they contained showed a range of

burial positions: mostly supine, but also flexed and even prone, and always orientated broadly east/west, with the head to the west. No direct dating evidence was obtained; the few associated finds were either not closely dateable (Small Finds 1-3) or were small and likely to be intrusive. However, the orientation suggests burials in the Christian tradition and so makes a prehistoric date unlikely, as does the stratigraphic relationship to the overlying deposits, which are clearly post-medieval in date, although the most immediately overlying deposit in most cases, **110**, probably represents the ground surface left after the graves were filled and comprised re-deposited natural. The presence of the burials also ties into the longstanding suggestion that there was a medieval chapel dedicated to St John on or near the site of the current house (see *Section 3.3.7*), which again would suggest a medieval or possibly early medieval date. The presence of a chapel is not confirmed in any documentary sources, but it is conceivable that the structural remains found during the earlier watching brief (Minerva Heritage 2009) were actually part of the chapel itself, the rest of which extended under the footprint of the current house (Figure 4). The burials took a remarkable range of types and showed a range of interesting pathology (see *Appendix 5*). The significance and relevance of this is uncertain without further analysis, but there are notable similarities between this site and remains found at the medieval chapel of St Morrell at Hallaton in Leicestershire (Score and Morison 2014; Malin Holst pers comm). In that case the chapel was specifically visited by pilgrims looking for healing, some of whom were apparently buried there.

6.4.4 Phase 3 (late medieval-early post-medieval): in the northern arm of the new retaining wall foundation trench a thin shell midden (**125**) was revealed between the natural and the overlying deposit (**107**). Finds recovered from this ranged from the late medieval period to the 17th/18th century and also included evidence for the working of antler and horn, as well as the consumption of a range of shellfish and fish, including eel (see *Appendix 6*). This deposit presumably derived from a domestic setting, although elements of its contents are relatively unusual and perhaps high status; it is difficult to reconcile the deposition of this material on the edge of what had previously been an area for burials, and it is not clear if there was a dwelling on the site or nearby at this time. Presumably, however, any chapel that had been present had gone out of use.

6.4.5 Phase 4 (18th-19th century): following the development of deposit **110** across the main part of the site, and above the shell midden (**125**), a thick layer of cultivation soil developed, represented by context **105** in the garage foundations and **107** in the new retaining wall foundation trench. Finds recovered from this were primarily post-medieval, with the more closely dateable types being 18th to 19th century, but also included some residual medieval pottery and human bone, the latter evidently disturbed from underlying deposits. The thickness of this deposit indicates that the area was subject to a considerable amount of cultivation, presumably over a lengthy period of time, perhaps from the medieval period onwards. The site had clearly stopped being used for burial at this time and the chapel had definitely fallen out of use, which corresponds with the earlier accounts of elements of it being discovered during building work on the site in the late 18th or early 19th century.

6.4.6 Phase 5 (early 19th century?): a substantial feature [**109**] was later cut through deposit **107** and filled with loosely deposited natural pale yellow sand (**108**). This clearly disturbed the underlying deposits and may even have reached the level of the burials as **108** contained some human bone. The finds recovered from it were surprisingly early, mainly 17th and 18th century, but these are presumably residual as stratigraphically this feature clearly postdates Phase 4. The purpose of cut **109** is unclear. Its size and proximity and orientation to the house suggests it was related to it, perhaps part of an early garden feature, and it seems likely, given the description of bones found during its construction, that it relates to the construction of the house sometime after 1811.

6.4.7 Phase 6 (19th century): two large pits were excavated through the Phase 4 deposit (**105/107**); **104** in the garage footings and **124** in the new retaining wall footings. Both are therefore stratigraphically likely to be 19th century or later, although only the fill of **104** (**103**) contained any finds and these ranged in date from the 17th to 19th century. **103** also contained a large amount of ironworking slag, probably from smithing, and considerable amounts of animal bone, including a near complete calf. Again, it is interesting that the site seemed to have reverted to be used as a dumping ground for rubbish, even after the new house had been built. Pit **124** seems likely to have acted as a soakaway for water coming off the roof of the main house, and apparently still served this purpose. It had evidently been broken into more recently and partly filled with a plastic sack.

6.4.8 **Phase 7 (19th-20th century)**: in both the garage footings and the new retaining wall footings the uppermost deposit was a dark soft garden soil (**100** and **106**), although in the garage footing trench this was partly augmented by a thin layer of gravel forming part of the surface of the drive (**102**). Finds recovered from **100** and **106** ranged in date but were all post-medieval with the latest examples dating from the late 19th and early 20th century.

6.5 Watching Brief – Significance

6.5.1 The discovery of human burials at Temple Bank confirms antiquarian descriptions of human remains being uncovered during the building of the house on the site and possibly before, and therefore adds further credence to the suggestion that a chapel, of presumably medieval date, existed on the site. In the absence of a contemporary documentary source, the burials, and possibly the structural remains found in the watching brief in 2009, remain the only reliable evidence for a chapel, but these now make a very compelling case. The initial assessment of the burials shows that there is potential for further important information to be obtained through further analysis, and this may in turn lead to a better understanding of the development of the site. In addition, the presence of other deposits and finds of medieval and later date demonstrate that the site was actively used for a range of purposes over a long period of time.

6.6 Watching Brief – Conclusion

6.6.1 The results of the watching brief, as outlined in this report, show considerable potential for further information to be obtained from the site, particularly from the human remains. As a result, it is recommended that additional analysis of the human remains be carried out prior to them being reburied. The results of this analysis should then be published as part of the results of the project in a suitable journal, ideally the *Transactions of the Cumberland and Westmorland Antiquarian Society* or perhaps *Medieval Archaeology*.

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Appendix 1: Project Design

Archaeological Watching Brief Cover Sheet and Project Design

The Site	
Site Name	Temple Bank, Beetham
County	Cumbria
NGR	349686 479491

Client	
Client Name	Mr and Mrs Phillips
Client's architect/agent	John Coward Architects

Planning	
Pre-planning?	No
Planning Application No.	SL/2021/1023 and SL/2021/1058
Plans (e.g. conversion, extension, demolition)	Conversion of barn into domestic dwelling and construction of new garage
Condition number	6 and 6
Local Planning Authority	South Lakeland District Council
Planning Archaeologist	Jeremy Parsons, Historic Environment Officer
Groundworks subject to watching brief	Reduction of ground level for new gate for barn (where deep excavation required) and excavation of foundation trenches for new garage

Archiving	
Relevant Record Office(s)/Archive Centre(s)	Kendal
Relevant HER	Cumbria County Council
Relevant museum	Kendal Museum

1. Introduction

1.1 Project Cover Sheet

1.1.1 All the details specific to this project are set out on the cover sheet of this project design. The project design itself covers all elements that are involved in an archaeological watching brief.

1.2 Greenlane Archaeology

1.2.1 Greenlane Archaeology is a private limited company based in Ulverston, Cumbria, and was established in 2005 (Company No. 05580819). Its directors, Jo Dawson and Daniel Elsworth, have worked continuously in commercial archaeology since 2000 and 1999 respectively, principally in the north of England and Scotland. Greenlane Archaeology is committed to a high standard of work, and abides by the Chartered Institute for Archaeologists' (CIfA) Code of Conduct. The watching brief will be carried out according to the Standards and Guidance of the CIfA (CIfA 2014a).

1.3 Staff

1.3.1 **Dan Elsworth (MA (Hons), ACIfA)** graduated from the University of Edinburgh in 1998 with an honours degree in Archaeology, and began working for the Lancaster University Archaeological Unit, which became Oxford Archaeology North (OA North) in 2001. Daniel ultimately became a project officer, and for over six and a half years worked on excavations and surveys, building investigations, desk-based assessments, and conservation and management plans. These have principally taken place in the North West, and Daniel has a particular interest in the archaeology of the area. He has managed many recent projects in Cumbria and Lancashire including several archaeological building recordings and watching briefs. He is very experienced at building recording, having carried out numerous such projects, mainly in Cumbria and Lancashire.

1.3.2 **Tom Mace (BA (Hons), MA, MIfA)** has extensive experience of working on a variety of archaeological projects, especially watching briefs, but also excavations, evaluations, and building recordings, as well as report writing and illustration production. He joined Greenlane Archaeology in 2008 having worked for several previous companies including Archaeological Solutions and Oxford Archaeology North. He currently works on a broad range of projects and is also responsible for the production of all illustrations for reports and publications as well as some post-excavation assessments. He is a Member of the Chartered Institute for Archaeologists.

1.3.3 **Jo Dawson (MA (Hons), ACIfA)** graduated from University of Glasgow in 2000 with a joint honours degree in Archaeology and Mathematics, and since then has worked continuously in commercial archaeology. Her professional career started at Glasgow University Archaeological Research Division (GUARD), following which she worked for Headland Archaeology, in Edinburgh, and then Oxford Archaeology North, in Lancaster. During this time she has been involved in a range of different archaeological projects. She has extensive experience of both planning and pre-planning projects, and has undertaken assessments of all sizes. Since establishing Greenlane Archaeology in 2005 she has managed numerous projects in south Cumbria, including desk-based assessments and evaluations. She currently mainly carries out quality control of reports and post-excavation assessments. She is an Associate member of the Chartered Institute for Archaeologists.

1.3.4 **Specialists:** Greenlane Archaeology have a range of outside specialists who are regularly engaged for finds and environmental work. Engagement is dependent upon availability, but specialists typically engaged are as follows:

Specialism	Specialist
Animal bone	Hannah Russ, Archaeology.biz
Ceramic building material, medieval and Roman	Phil Mills
Conservation	York Archaeological Trust
Clay tobacco pipe	Peter Davey (or Tom Mace in house for smaller assemblages)
Flots	Headland Archaeology, Edinburgh
Human bone	Malin Holst
Industrial residue	Gerry McDonnell
Medieval pottery	Chris Cumberpatch for assemblages from the North East of England
Miscellaneous find types, for example Roman glass and medieval and earlier metalwork	Chris Howard-Davis
Prehistoric pottery	Blaise Vyner
Radiocarbon dates	Scottish Universities Environmental Research Centre
Roman pottery	Ruth Leary
Samian	Gwladys Monteil
X-ray of metal finds	York Archaeological Trust

2. Objectives

2.1 Desk-Based Assessment

2.1.1 Where an archaeological desk-based assessment has not already been carried out in a previous phase of work, the objective will be to examine early maps of the site and any other relevant primary and secondary sources in order to better understand its dating and development, and set it in its historic context.

2.2 Watching Brief

2.2.1 To carry out an archaeological watching brief on the relevant areas of groundworks, in order to identify any and record surviving any archaeological remains that are revealed.

2.3 Report

2.3.1 To produce a report detailing the results of the watching brief.

2.4 Archive

2.4.1 Produce a full archive of the results of the project.

3. Methodology

3.1 Desk-Based Assessment

3.1.1 Where an archaeological desk-based assessment has not already been carried out in a previous phase of work, an examination of various sources, particularly early maps and plans relating to the site, will be carried out, including other relevant primary and secondary sources. The sources that will be used as part of the desk-based assessment will include:

- **Record Office/Archive Centre:** the majority of original and secondary sources relating to the site are deposited in the relevant Record Office(s) or Archive Centre(s), as specified in the cover sheet of this project design. Of principal importance are early maps of the site. These will be examined in order to establish the development of the site, date of any structures present within it, and details of land use, in order to set the site in its historical, archaeological, and regional context. In addition, any details of the site's owners and occupiers will be acquired where available;
- **Online Resources:** where available, mapping such as Ordnance Survey maps and tithe maps will be consulted online;
- **Greenlane Archaeology:** Greenlane Archaeology's office library includes maps, local histories, and unpublished primary and secondary sources. These will be consulted where relevant, in order to provide information about the history and archaeology of the site and the general area.

3.2 Watching Brief

3.2.1 The relevant area of groundworks will be monitored, with one archaeologist on site. If there are several areas being excavated concurrently it may be considered necessary to have more than one archaeologist on site.

3.2.2 The watching brief methodology will be as follows:

- All excavation will be carried out under supervision by staff from Greenlane Archaeology;
- All deposits of archaeological significance will be examined by hand if possible in a stratigraphic manner, using shovels, mattocks, or trowels as appropriate for the scale;
- The position of any features, such as ditches, pits, or walls, will be recorded and where necessary these will be investigated in order to establish their full extent, date, and relationship to any other features. If possible, negative features such as ditches or pits will be examined by sample excavation, typically half of a pit or similar feature and approximately 10% of a linear feature;
- All recording of features will include detailed plans and sections at a scale of 1:20 or 1:10 where practicable or sketches where it is not and photographs in both colour print and colour digital format. In addition, photographs will also be taken of the site before work begins and after completion;
- All deposits, drawings and photographs will be recorded on Greenlane Archaeology *pro forma* record sheets;

- All finds will be recovered during the watching brief for further assessment as far as is practically and safely possible. Should significant amounts of finds be encountered an appropriate sampling strategy will be devised;
- All faunal remains will also be recovered by hand during the watching brief as far as is practically and safely possible, but where it is considered likely that there is potential for the bones of fish or small mammals to be present appropriate volumes of samples will be taken for sieving;
- Deposits that are considered likely to have, for example, preserved environmental remains, industrial residues, and/or material suitable for scientific dating will be sampled. Bulk samples of between 20 and 60 litres in volume (or 100% of smaller features) where possible, depending on the size and potential of the deposit, will be collected from stratified undisturbed deposits and will particularly target negative features (e.g. gullies, pits and ditches) and occupation deposits such as hearths and floors. An assessment of the environmental potential of the site will be undertaken through the examination of samples of suitable deposits by specialist sub-contractors, who will examine the potential for further analysis. All samples will be processed using methods appropriate to the preservation conditions and the remains present;
- Any articulated human remains discovered during the watching brief will be left *in situ*, and, if possible, covered. The client will be immediately informed as will the local coroner. Should it be considered necessary to remove the remains this will require a Home Office licence, under Section 25 of the Burial Act of 1857, which will be applied for should the need arise;
- Any objects defined as 'treasure' by the Treasure Act of 1996 (HMSO 1996) will be immediately reported to the local coroner and securely stored off-site, or covered and protected on site if immediate removal is not possible;
- Should any significant archaeological deposits be encountered during the watching brief these will immediately be brought to the attention of the Planning Archaeologist so that the need for further work can be confirmed. Any additional work will be carried out following discussion with the Planning Archaeologist and subject to a new project design, and the ensuing costs will be agreed with the client.

3.3 Report

3.3.1 The results of the watching brief will be compiled into a report, which will provide a summary and details of any sources consulted. It will include the following sections:

- A front cover including the appropriate national grid reference (NGR);
- A concise non-technical summary of results, including the date the project was undertaken and by whom;
- Acknowledgements;
- Project Background;
- Methodology, including a description of the work undertaken;
- Results of the watching brief, including finds and samples;;
- Discussion of the results including phasing information;
- Bibliography;
- Illustrations at appropriate scales including:
 - a site location plan related to the national grid;
 - a plan showing the location and extent of the area subject to archaeological watching brief;
 - plans and sections of any features discovered during the watching brief;
 - photographs of any features encountered during the watching brief;
 - copies of selected historic maps and plans of the site relevant to the understanding of its development.

3.4 Archive

3.4.1 The archive, comprising the drawn, written, and photographic record of any deposits of archaeological interest and/or working shots identified during the watching brief, formed during the project, will be stored by Greenlane Archaeology until it is completed. Upon completion it will be deposited with the relevant Record Office or Archive Centre, as detailed on the cover sheet of this project design, together with a copy of the report. The archive will be compiled according to the standards and guidelines of the ClfA (ClfA 2014b). In addition details will be submitted to the Online Access to the Index of archaeological investigations (OASIS) scheme. This is an internet-based project intended to improve the flow of information between contractors, local authority heritage managers and the general public.

3.4.2 A copy of the report will be provided to the client and a copy will be provided for the relevant Historic Environment Record, as detailed on the cover sheet of this project design.

4. Work timetable

4.1 Greenlane Archaeology will be available to commence the project on the date specified on the Order Form, or at another date convenient to the client. It is envisaged that the elements of the project will be carried out in the following order:

- **Task 1:** rapid desk-based assessment (where this has not already been carried out as a previous phase of archaeological work);
- **Task 2:** archaeological watching brief;
- **Task 3:** production of draft report including illustrations;
- **Task 4:** feedback on draft report, editing and production of final report;
- **Task 5:** finalisation and deposition of archive.

5. Other matters

5.1 Access and clearance

5.1.1 Access to the site will be organised through co-ordination with the client and/or their agent(s). It is assumed that the watching brief will be able to be undertaken without obstruction. Greenlane Archaeology reserves the right to increase the price if problems with access result in delays to the work.

5.2 Health and Safety

5.2.1 Greenlane Archaeology carries out risk assessments for all of its projects and abides by its internal health and safety policy and relevant legislation. Health and safety is always the foremost consideration in any decision-making process.

5.3 Insurance

5.3.1 Greenlane Archaeology has professional indemnity insurance to the value of **£1,000,000**. Details of this can be supplied if requested.

5.4 Environmental and Ethical Policy

5.4.1 Greenlane Archaeology has a strong commitment to environmentally and ethically sound working practices. Its office is supplied with 100% renewable energy by Good Energy, and uses ethical telephone and internet services supplied by the Phone Co-op. In addition, the company uses the services of The Co-operative Bank for ethical banking, Naturesave for environmentally-conscious insurance, and utilises public transport wherever possible. Greenlane Archaeology is also committed to using local businesses for services and materials, thus benefiting the local economy, reducing unnecessary transportation, and improving the sustainability of small and rural businesses.

6. Bibliography

ClfA, 2014a *Standard and Guidance for an Archaeological Watching Brief*, Reading

ClfA, 2014b *Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives*, Reading

Appendix 2: Summary Context List

Location	Context	Type	Description	Interpretation
Garage	100	Deposit	Soft dark brown silt, up to 0.3m thick	Garden soil
Garage	101	Deposit	Firm pale brownish yellow firm sand	Natural
Garage	102	Deposit	Loose pale yellowish grey sandy gravel, 0.2m thick	Surface of drive
Garage	103	Deposit	Loose dark greyish brown silt, up to 75% angular cobbles, 0.5m thick	Dumped fill of pit [104]
Garage	104	Cut	Large pit at least 2.2m long north-east/south-west, sides at 45° and up to 0.5m deep	Cut of rubbish pit
Garage	105	Deposit	Dark orangey-brown soft sandy silt, 2% rounded cobbles and up to 60% rounded gravel in places, up to 0.6m+ thick	Buried soil
Retaining wall	106	Deposit	Dark greyish brown soft silt up to 0.2m thick	Topsoil
Retaining wall	107	Deposit	Soft mid-brown silty clay 0.3m-0.6m thick	Buried cultivation soil
Retaining wall	108	Deposit	Soft, pale yellow sand	Fill of [109]
Retaining wall	109	Cut	Shallow U-shaped profile c7m across north-west/south-east and an unknown distance north-east/south-west but at least c5m. Over 0.6m deep	Former garden feature?
Retaining wall	110	Deposit	Mid orange gritty sandy clay, 10% rounded gravel, less than 0.2m thick	Former ground surface?
Retaining wall	111	Deposit	Mid orange gritty sandy clay, 20% rounded pebbles	Fill of Grave 1
Retaining wall	112	Cut	Shallow long oval orientated north-west/south-east, 0.2m-0.3m deep, edged with rounded boulders on north-east side	Cut of Grave 1
Retaining wall	113	Deposit	Loose rounded cobbles forming low approximately oval 'cairn' c1.5m long by 1m wide and up to 0.1m thick	Cairn covering Grave 4
Retaining wall	114	Deposit	Mid orange gritty sandy clay, 20% rounded pebbles	Fill of Grave 4
Retaining wall	115	[Cut]	[Layer of burials in Grave 4, no actual cut as laid on underlying ground surface 110]	Cut for Grave 4
Retaining wall	116	Deposit	Mid orange gritty sandy clay, 20% rounded pebbles	Fill of Grave 2
Retaining wall	117	Cut	Shallow cut only evident in section, up to 0.2m deep	Cut for Grave 2
Retaining wall	118	Deposit	Mid orange gritty sandy clay, 20% rounded pebbles some with mortar attached	Fill of Grave 3
Retaining wall	119	Cut	Shallow cut only evident in section, up to 0.2m deep	Cut for Grave 3
Retaining wall	120	Deposit	Mid orange gritty sandy clay, 20% rounded pebbles, some with mortar attached	Fill of Grave 5
Retaining wall	121	Deposit	Patch of loose round cobbles associated with Skeleton 11	Part of fill of Grave 3
Retaining wall	122	Cut	Shallow cut only visible in section, up to 0.2m deep	Cut for Grave 5
Retaining wall	123	Deposit	Loose angular boulders in matrix of soft dark greyish brown silt, at least 0.5m deep, and over 1m wide	Fill of pit [124]
Retaining wall	124	Cut	U-shaped pit only visible in section, over 0.5m wide and 1m deep, more recently disturbed at the top	Soakaway
Retaining wall	125	Deposit	Loose dark brown silty clay with numerous cockle and other shells, c0.2m thick	Shell midden

Appendix 3: Summary Finds List

Context	Type	Qty	Description	Date range
100	Pottery	17	Brown- and black-glazed red earthenware coarseware, including crock rim and bases, pancheon/dish bases, and hollowware rim and body fragments decorated with white slip stripes	Late 17 th – early 20 th century
100	Pottery	1	Brown-glazed grey-bodied stoneware hollowware vessel base	Late 18 th – early 20 th century
100	Pottery	2	Creamware (?) refitting bowl rim fragments	Mid-18 th – 19 th century
100	Pottery	2	Pearlware blue transfer-printed hollowware rim to base fragment with blue feather edge, and base fragment	Late 18 th – early 19 th century
100	Pottery	16	White earthenware, including blue transfer-printed Willow x 8, blue shell edge pie dish rim to base, blue transfer-printed toilet bowl rim matching that from unstratified deposits, and rouletted lustre mug/cup fragment	19 th – early 20 th century
100	Pottery	3	Porcelain bowl rim to base, rim, and base, with blue painted decoration	18 th – early 19 th century
100	Pottery	1	Glazed buff-bodied stoneware ridged jar body fragment	19 th – early 20 th century
100	Glass	2	Dark green bottle fragment	Late 18 th – early 20 th century
100	Glass	1	Very light turquoise crown glass window pane centre	19 th century
100	Clay tobacco pipe	2	Plain stem fragments: 1x length: 44mm, 7mm diameter section, central 5/64" diameter borehole; 1x length: 28mm, c8mm diameter section, central 6/64" diameter borehole	18 th – 19 th century
100	Marine shell	1	Oyster valve with hole punched through	Not closely dateable
100	Pb alloy	1	Folded fragment of fairly thick lead sheet, hammered lines on one side	Not closely dateable
103	Pottery	1	High-fired black-glazed red earthenware fineware everted vessel rim	Late 17 th – 18 th century?
103	Pottery	3	Black-glazed red earthenware coarseware including crock base	Late 17 th – early 20 th century
103	Pottery	1	Pearlware saucer rim-to-base with blue painted decoration	Late 18 th – early 19 th century
103	Pottery	3	White earthenware, including blue transfer-printed Willow x 2	19 th – early 20 th century
103	Pottery	1	Factory-produced glazed buff-bodied earthenware pie dish base	Late 18 th – early 20 th century
103	Clay tobacco pipe	2	Plain stem fragments: 1x length: 49.5mm, slightly oval-shaped section, 10-11mm, very off-centre 8/64" diameter borehole; 1x length: 38mm, c7mm diameter section, central 4/64" diameter borehole	17 th century and 19 th century
103	Industrial residue	4	Iron slag, light weight and fairly aerated, probably smithing slag	Post-medieval?
103	Fe	1	Broken hinge end of strap hinge for pintle hanging	Post-medieval

Context	Type	Qty	Description	Date range
105	Pottery	1	Tin-glazed earthenware with blue painted decoration	Late 17 th – early 18 th century
105	Pottery	1	Creamware	Mid – late 18 th century
105	Pottery	1	White earthenware with blue slip-coated exterior and applied white sprigs of grapes and vine leaves	Late 18 th – 19 th century
105	Pottery	5	Brown- and black-glazed red earthenware coarseware, including crock rim and base	Late 17 th – early 20 th century
105	Industrial residue	1	Large lump of heavy iron working slag, fairly aerated and approximately the form of a smithing hearth base so perhaps from blacksmithing	Post-medieval?
105	Marine shell	2	Cockle shell valves	Not closely dateable
106	Pottery	1	Glazed red slip-coated buff-bodied earthenware coarseware hollowware base fragment	Late 17 th – early 18 th century
106	Pottery	1	Glazed red slip-coated buff-bodied earthenware fineware with white slip trailing	Late 17 th – early 18 th century
106	Pottery	4	Brown- and black-glazed red earthenware coarseware including hollowware base, hollowware rim with white slip stripe, and strap handle fragment	Late 17 th – early 20 th century
106	Pottery	1	Creamware lid-seated hollowware rim fragment, cross-join with fragment from 107	Mid – late 18 th century
106	Pottery	1	Pearlware	Late 18 th – early 19 th century
106	Pottery	2	Refitting bone china tea cup rim-to-base with enamelled stripe	19 th – early 20 th century
106	Pottery	2	Brown- and black-glazed red earthenware coarseware	Late 17 th – early 20 th century
106	Pottery	2	White earthenware blue transfer-printed Willow and Fibre	19 th century
106	Glass	1	Dark green bottle rim to shoulder	18 th – 19 th century
106	Clay tobacco pipe	1	Slightly curved plain stem fragment; length: 54mm; c6mm diameter to one end and narrowing to 4.5mm diameter at the other end; central 5/64" diameter borehole	18 th – 19 th century

Context	Type	Qty	Description	Date range
107	Pottery	10	7x Reduced grey ware fragments: 4x surface fragments of hard-fired, uniform, mid-to-dark grey sandy fabric, with few visible inclusions, drab, mottled dark greenish-brown glaze, one fragment has oxidised orange patches; 1x body fragment of thin-walled vessel (c6mm thick) of hard-fired, uniform, mid-to-dark grey sandy fabric, with few visible inclusions, drab, mottled dark brown and greenish-brown glaze on internal and external surfaces; 2x fragments of Silverdale ware with applied pie-crust decoration below rim (both uniform, hard-fired grey sandy fabric, with few visible inclusions, with drab, mottled dark brown and dark olive greenish-brown glaze on internal and external surfaces, 1x mid grey core and lighter grey margins, 1x squared rim fragment with more decoration remaining with mid grey section). 1x very soft (it will mark paper), much abraded small piece of fired clay. 1x possibly sandy ware(?): soft-fired base fragment, sandy fabric with few inclusions, reduced mid grey and oxidised orange fabric. 1x Gritty ware: lightly gritted sandy fabric, hard-fired, mostly dark grey fabric, with light orange outer margin and brownish outer surface, otherwise grey.	c12 th – 17 th century
107	Pottery	9	Brown-glazed red earthenware coarseware with white slip stripes, from different hollowware and flatware vessels	Late 17 th – early 20 th century
107	Pottery	10	Brown-glazed red earthenware fineware, including two refitting fragments, a hollowware rim, and a strap handle fragment	Late 17 th – early 20 th century
107	Pottery	50	Brown- and black-glazed red earthenware coarseware including crock bases and rim, pancheon rims and base, and plate rim with manganese-streaked glaze	Late 17 th – early 20 th century
107	Pottery	1	Glazed buff-bodied earthenware hollowware base	Late 17 th – early 18 th century
107	Pottery	3	Brown-glazed buff-/pinkish-bodied earthenware	Late 17 th – early 18 th century
107	Pottery	3	Brown-glazed red earthenware fineware everted hollowware rims, with white slip spot, one with white slip-coated interior, and one with white slip stripes	Late 17 th – early 20 th century
107	Pottery	2	Dark brown salt-glazed buff-bodied stoneware fineware body fragment, and white salt-glazed stoneware fineware body fragment	Late 17 th – early 18 th century?
107	Pottery	1	White salt-glazed stoneware hollowware fineware rim with brown-glazed edge	Late 17 th – early 18 th century?
107	Pottery	1	Brown-glazed grey-bodied stoneware rouletted hollowware body fragment	Late 18 th – early 20 th century?
107	Pottery	3	Tin-glazed earthenware	Late 17 th – early 18 th century?
107	Pottery	8	Creamware, including lid-seated rim cross-join with fragment from 106 , and base fragment	Mid – late 18 th century
107	Pottery	1	Red earthenware flower pot fragment	Late 18 th – 20 th century

Context	Type	Qty	Description	Date range
107	Ceramic	1	Red earthenware pottery/ceramic building material, with fireskin but no glazed surfaces present	Late 17 th – early 20 th century?
107	Pottery	1	Pearlware blue-painted base fragment	Late 18 th – early 19 th century
107	Pottery	9	White earthenware, including blue painted fragment, blue shell edge plate fragments, and blue transfer-printed fragments (Willow plate rim and body fragment, factory produced slipware, and refitting plate rim-to-base fragments with grape vine pattern)	19 th – early 20 th century
107	Ceramic building material	1	Purplish-brown-glazed tile fragment	Late 19 th – early 20 th century?
107	Clay tobacco pipe	4	2x plain stem fragments: 1x length: 49mm, oval-shaped section, 6-7mm; central 5/64" diameter borehole; 1x length: 35mm, oval-shaped section, 6-7mm; central 5/64" diameter borehole. 1x plain bowl fragment (perhaps quarter of circumference and third height from top), 19 th century? 1x complete plain bowl, probably 19 th century (e.g. Atkinson and Oswald 1969), with spur, broken at stem/bowl junction, 5/64" diameter borehole.	18 th – 19 th century
107 associated with SK 4/5	Clay tobacco pipe	1	Plain stem fragment; length: 17.5mm; oval-shaped section, 7-8.5mm; central 7/64" diameter borehole	17 th – 18 th century
107 north arm	Clay tobacco pipe	1	Plain stem fragment: length: 39mm, 9mm diameter section, central 8/64" diameter borehole	17 th – 18 th century
107 south arm	Pottery	3	1x Reduced grey ware fragment: hard-fired, uniform, mid-to-dark grey sandy fabric, with few visible inclusions, drab, mottled dark greenish-brown glaze applied all over internally and externally, vessel wall thickness: 9mm; 1x possibly sandy ware: very soft (it will mark paper), much abraded small piece of fired clay; 1x lid-seated rim fragment of everted rim with pronounced eternal flange, in a lightly gritted pale buff-coloured sandy fabric with abundant very fine inclusions <0.05mm, no glaze apparent	c13 th – 17 th century
107 south arm	Clay tobacco pipe	2	Plain stem fragments: 1x length: 34mm, 8-9mm diameter section, central 8/64" diameter borehole, fabric noted to have darker grey core around borehole; 1x length: 41mm, slightly oval-shaped section, 6-7mm across, with central 6/64" diameter borehole	17 th – 18 th century

Context	Type	Qty	Description	Date range
107 south arm	Pottery	2	Reduced grey ware fragments: 1x hard-fired, uniform, mid-to-dark grey sandy fabric, with few visible inclusions, drab, mottled dark brown and lighter olive green glaze applied all over internally and externally, thin walled vessel (thickness: 6mm); 1x part of base and side of near vertical-sided ?storage vessel, possibly a jug or cistern, slightly flared at base; complete vessel would measure c175mm diameter at base; hard-fired sandy fabric in a generally mid grey fabric but with patches of oxidised mid orange fabric to margins and surfaces; mottled dark brown and lighter olive green glaze applied all over internally and externally, vessel wall thickness: 6mm	c13 th – 17 th century
108	Pottery	1	Black-glazed red slip-coated buff-bodied earthenware hollowware body fragment	Late 17 th – early 18 th century?
108	Pottery	1	White salt-glazed stoneware body fragment	Late 17 th – early 18 th century?
108	Pottery	1	Pearlware body fragment with blue transfer-printed pattern	Late 18 th – early 19 th century
108	Pottery	5	Brown- and black-glazed red earthenware coarseware fragments, with one possible fineware fragment	Late 17 th – early 20 th century
108	Clay tobacco pipe	1	Plain stem fragment; length: 79mm; oval-shaped section, 7-8mm; slightly off-centre 8/64" diameter borehole	17 th century
108	Fe	1	Corroded strip, possibly nail shank but very thin	Not closely dateable
113	CBM	2	Abraded lumps of pale off-white daub?	Not closely dateable
113	Stone	1	Green Borrowdale (?) volcanic cobble, smooth on one side and rough on other, with various apparently intentional lines scored into both sides, uncertain what they depict	Not closely dateable
118	Pottery	1	Glazed buff-bodied earthenware fineware body fragment	Late 17 th – early 18 th century?
125	Pottery	1	Reduced grey ware: large fragment with sharp breaks, uniform, hard-fired, mid grey sandy fabric, with few inclusions or voids; some very small patches of a dark greenish-brown glaze both internal and external surfaces; vessel wall thickness: 7mm	c13 th – 17 th century
125	Glass	2	Green bottle fragments	17 th – early 18 th century?
125	Pottery	2	Black-glazed red earthenware coarseware hollowware base fragment and possible fineware body fragment	Late 17 th – early 20 th century

Appendix 4: Geophysical Survey

Appendix 5: Human Bone Assessment

ASSESSMENT OF HUMAN REMAINS FROM TEMPLE BANK, BEETHAM, CUMBRIA

Alice Rose and Malin Holst

Introduction

Eleven in-situ articulated skeletons and thirteen small bags of disarticulated bone from seven contexts were recovered from Temple Bank, Beetham, Cumbria (TB22; SD 349686 479491; Table 1, Table 2). Currently, the date of the skeletal remains is unknown but it is assumed that the *in situ* skeletons are medieval or older. The burial position and style varied across the site, with supine, flexed and prone burials.

Objectives

The aim of the skeletal assessment was to establish the character of the articulated and disarticulated skeletal assemblage (completeness, preservation, minimum number of individuals present) and to assess the potential of the skeletal remains for further analysis which could determine age, sex, stature and any skeletal manifestations of disease and trauma.

Methodology

The articulated skeletons were rapidly macroscopically analysed, assessing the preservation and completeness, as well as the potential for age, sex, and stature of the individuals. Any immediately obvious pathological lesions were noted. The disarticulated bone was rapidly counted and the minimum number of individuals (MNI) represented was determined. Any commingled faunal bone was removed and bagged separately.

Osteological Analysis

Table 1 Summary of articulated bone assemblage

Context Number	Completeness	Preservation	Possibility of Age Category	Possibility of Sex	Possibility of Stature	Commingled Bones?
SK1	25-50%	Poor	Adult	Yes	Maybe	Yes, MNI=3

SK2	25-50%	Moderate	Adult	Yes	Maybe	No, MNI=1
SK3	1-25%	Moderate	Adult	No	No	No, MNI=1
SK4	75-100%	Good	Adult	Yes	Yes	No, MNI=1
SK5	50-75%	Moderate	Older non-adult	N/A	N/A	Yes, MNI=3
SK6	25-50%	Moderate	Adult	Yes	Yes	Yes, MNI=2
SK7	50-75%	Moderate	Older non-adult	N/A	N/A	Yes, MNI=2
SK8	75-100%	Moderate	Adult	Yes	Yes	Maybe, MNI=2
SK9	50-75%	Good	Adult	Yes	Maybe	Yes, MNI=2
SK10	1-25%	Moderate	Adult	No	No	No, MNI=1
SK11	25-50%	Moderate	Adult	Yes	Maybe	Yes, MNI=2

Table 2: Summary of disarticulated bone assemblages by bag (multiple bags per context)

Context Number	Weight (g) (before assessment)	Number of Human Bone Fragments	Comments	Combined MNI per context
106	72	3	MNI = 1: adult bones present	MNI = 1
107 (1/2)	569	130	MNI = at least 3: adult and non-adults of at least 2 different ages present, a lot of dentition present 8 animal bone fragments removed	MNI = at least 3: adult and non-adults of at least 2 different ages present
107 (2/2)	827	19	MNI = at least 2, based on repeating elements present, 1 very pathological rib – new bone, thickened 1 animal bone fragment removed	
107 (assoc. with SKs 4/5)	72	21	MNI = at least 2: adult & non-adult bones present 8 animal bone fragments removed	
107	28	3	MNI = 1: adult bones present	
107	12	1	MNI = 1: adult bones present	
107	295	100	MNI = at least 2: adult and very young nonadult bones present	
108	118	11	MNI = at least 2, based on dental development	

108	175	46	MNI = at least 2: adult and non-adult bones present	
110	5	2	MNI = 1: adult bones present	MNI= 1
113	41	36	MNI = at least 2: adult and non-adult bones present 1 animal bone fragment removed	MNI = at least 2: adult and non-adult bones present
125	36	1	MNI = 1: adult bones present	MNI = 1: adult bones present
u/s	260	24	MNI = 1: adult bones present	MNI = 1: adult bones present

Preservation and Completeness

Skeletal preservation depends upon several factors, including the age and sex of the individual as well as the size, shape and robusticity of the bone. Burial environment, post-depositional disturbance and treatment following excavation can also have a considerable impact on bone condition (Henderson 1987, Garland and Janaway 1989, Janaway 1996). Preservation of human skeletal remains is assessed subjectively, depending upon the severity of bone surface erosion and post-mortem breaks, but disregarding completeness. Preservation is important, as it can have a large impact on the quantity and quality of information that it is possible to obtain from the skeletal remains.

Surface preservation, concerning the condition of the bone cortex, of the inhumations, was assessed using the seven-category grading system defined by McKinley (2004), ranging from 0 (excellent) to 5+ (extremely poor). Excellent preservation implied no bone surface erosion and a clear surface morphology, whereas extremely poor preservation indicated heavy and penetrating erosion of the bone surface resulting in complete loss of surface morphology and modification of the bone profile. The degree of fragmentation was recorded, using categories ranging from 'minimal' (little or no fragmentation of bones) to 'extreme' (extensive fragmentation with bones in multiple small fragments). Finally, the completeness of the skeletons was assessed and expressed as a percentage: the higher the percentage, the more complete the skeleton.

In total, eleven articulated human skeletons were recovered (some partial) from Temple Bank, Beetham, along with thirteen small bags of disarticulated bone. The preservation varied, but the bones were generally fragmented and in moderate condition. The completeness of the articulated skeletons also varied, with two skeletons being 1-25% complete, four being 25-50% complete, three being 50-75% complete and two being 75-100% complete.

Minimum Number of Individuals

A count of the 'minimum number of individuals' (MNI) recovered from a cemetery is conducted as standard procedure during osteological assessments of inhumations in order to establish how many individuals were represented by the articulated and disarticulated human bones.

Eleven articulated adult and non-adult human skeletons were recovered from Temple Bank, Beetham. However, eight of these included associated skeletal remains of either repeated skeletal elements or skeletal elements from an individual of a different developmental age, bringing the MNI from the burials to twenty. The MNI potentially represented by the disarticulated bone assemblages is eleven, bringing the overall MNI to 31. However, some contexts, particularly Contexts 107 and 108, cover large areas and comprise garden/cultivation soil or backfill. It is likely that bone in these contexts is residual and redistributed from earlier burials. It is probable that some of the disarticulated bone may be associated with the articulated skeletons, e.g. the thickened rib bone fragment found in Context 107 is most likely to be associated with SK4.

It is recommended that time is taken to check this skeletal assemblage in more detail to see if any elements can be re-associated with the correct articulated skeleton.

Age

Age is usually determined using standard ageing techniques, as specified in Scheuer and Black (2000a; 2000b) and Cox (2000). Age estimation in adults relies on the presence of the pelvis and uses different stages of bone development and degeneration in order to calculate the age of an individual (Lovejoy et al 1985; Meindl and Lovejoy 1989). Age is split into a number of categories, from foetus (up to 40 weeks in *utero*), neonate (around the time of birth), infant (newborn to one year), juvenile (1-12 years), adolescent (13-17 years), young adult (ya; 18-25 years), young middle adult (yma; 26-35 years), old middle adult (oma; 36-45 years), mature adult (ma; 46+) to adult (an individual whose age could not be determined more accurately as over the age of seventeen).

The assessment of the articulated human skeletons indicates that it should be possible to assign five skeletons to specific age categories. It may be possible to determine the age category of a further three, although for these either limited diagnostic elements are present, or elements are affected by pathology. For the remaining three individuals, it is possible to determine that they are adults, based on complete skeletal fusion, but due to a lack of diagnostic elements it will not be possible to place the skeletons into a specific age category beyond 'Adult' (>18yrs).

Sex

Sex determination is usually conducted using standard osteological techniques, such as those described by Mays and Cox (2000). Assessment of sex in both males and females relies on the preservation of the skull and the pelvis and can only be carried out once sexual characteristics have developed, during late puberty and early adulthood.

It is assessed that sex determination may be possible for six of the eight adult articulated skeletons from Temple Banks.

Summary

The human skeletal remains recovered from Temple Bank, Beetham represent a diverse assemblage of individuals. The variation in burial practices present, particularly the presence of an individual (SK6) who appears to be buried prone (face down) is interesting, and it is recommended that further dating and phasing evidence is obtained (e.g. radiocarbon dates) in order to situate the burials within the context of contemporary funerary practices.

It is recommended that the *in situ* articulated skeletal remains undergo full osteological analysis, particularly as two individuals appear to exhibit severe pathological changes. These individuals have the potential to be informative for both palaeopathological and social research, as both clearly lived with these conditions for some time.

The disarticulated skeletal material has limited osteological research potential. It is recommended that the disarticulated elements are checked to establish if any elements can be reunited with any of the articulated skeletons and then the remaining elements should be recorded, noting element, preservation, age, sex and pathology.

Catalogue of articulated skeletons

Skeleton 1

SK1 is fragmented and poorly preserved, with extensive bone surface erosion. The skeleton is around 25-50% complete. It may be possible to determine the sex of the individual, although few key elements for sex estimation are present. It will not be possible to determine the age of the individual beyond 'Adult' (>18yrs). It may be possible to determine stature, although most of the long bones present are broken post-mortem. Commingled adult bones (repeat left talus) and non-adult bones means MNI=3.

Skeleton 2

SK2 is fragmented and moderately well preserved, with moderate bone surface erosion. The skeleton is around 25-50% complete. It may be possible to determine the sex of the individual, although few key elements for sex estimation are present. It may be possible to determine the age of the individual more specifically than just to 18+, but this would be based on dental wear only. It may be possible to determine stature, although most of the long bones present are broken post-mortem.

Skeleton 3

SK3 is fragmented and moderately well preserved. The skeleton is around 1-25% complete, consisting of lower right arm bones only. It will not be possible to determine the sex of the individual or the age of the individual beyond 'Adult' (>18yrs). It will not be possible to determine stature.

Skeleton 4

SK4 is fragmented but well preserved, with little bone surface erosion. The skeleton is around 75-100% complete. It should be possible to determine the sex and the age of the individual more specifically than just that they were an adult, but key diagnostic skeletal elements are affected by pathology. It may be possible to determine stature, although most of the long bones present are broken post-mortem. This individual displays pathological changes throughout the skeleton, including dental disease, trauma, metabolic disease, joint disease and neoplastic disease. The neoplastic changes are significant and warrant further detailed examination.

Skeleton 5

SK5 is fragmented and moderately well preserved. The skeleton is around 50-75% complete. It will be possible to determine the age of the individual based on bone fusion and dental development, but as the individual appears to be an older non-adult, it is not possible to determine the sex through macroscopic osteological examination alone. Commingled adult bones (hand) and non-adult dentition from younger individual means MNI=3.

Skeleton 6

SK6 is fragmented and moderately well preserved, with moderate bone surface erosion. The skeleton is around 25-50% complete. It should be possible to determine the sex, age (more specifically than 'adult') and stature of the individual. Left and right temporals do not match in size, likely comingled, therefore MNI=2.

Skeleton 7

SK7 is fragmented and moderately well preserved, with moderate to severe bone surface erosion. The skeleton is around 50-75% complete. It will be possible to determine the age of the individual based on bone fusion and dental development, but as the individual appears to be an older non-adult, it is not possible to determine the sex through macroscopic osteological examination alone. Comingled bones and dentition means MNI=2, recommend checking association of skull and dentition as they may not belong to the same skeleton.

Skeleton 8

SK8 is fragmented and moderately well preserved, with moderate bone surface erosion. The skeleton is around 75-100% complete. It should be possible to determine the sex, a more specific adult age and stature of the individual. Possible comingled bones means MNI=2.

Skeleton 9

SK9 is fragmented but well preserved, with little bone surface erosion. The skeleton is around 50-75% complete. It should be possible to determine the sex and a more specific age for the individual, but key diagnostic skeletal elements are affected by pathology. It may be possible to determine stature, although most long bones are broken post-mortem and may be affected by pathology. This individual displays pathological changes throughout the skeleton, including infection, trauma, joint disease and potential congenital fusion of the sacroiliac joint. The pathological and morphological changes observed in the left shoulder and the pelvic girdle are significant and warrant further detailed examination. Bag marked 'right arm' contains repeat elements of different size and do not belong to this individual, therefore MNI=2.

Skeleton 10

SK10 is fragmented and moderately well preserved, with little to moderate bone surface erosion. The skeleton is around 1-25% complete, consisting of several left limb bone fragments and left and right tarsals only. It will not be possible to determine the sex of the individual or the age of the individual beyond 'Adult' (>18yrs). It will not be possible to determine stature.

Skeleton 11

SK11 is fragmented and moderately well preserved, with moderate to poor bone surface erosion. The skeleton is around 25-50% complete, consisting largely of lower limb bones. It may be possible to determine the sex of the individual, although this would be based on limited skull features only. It may be possible to determine the age of the individual beyond 'Adult' (>18yrs), although this would be largely based on dental wear only. It may be possible to determine stature, although most of the long bones present are broken post-mortem. Comingled non-adult bones present, therefore, MNI=2.

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Appendix 6: Animal Bone Assessment

Assessment of animal bone and shell from Temple Bank, Beetham, Cumbria

TB22

Hannah Russ

Introduction

Animal remains comprising mammals, birds, fish and marine and terrestrial molluscs (995 fragments) were recovered via hand collection and from bulk environmental samples taken during archaeological works at Temple Bank, Beetham, Cumbria by Greenlane Archaeology in 2022 (TB22). Temple Bank is a house dating to the 1850s; the excavations revealed a number of human burials in various states of preservation. This assessment includes quantification of the animal bone assemblage recovered with identification at species level where possible, an assessment of significance and recommendation(s) for any further work.

Methods

The animal remains were identified to element, side and to as low a taxonomic level as possible using the Author's reference collection and published and online identification guides (Hillson 2003; 2005). Quantification for mammal remains used the diagnostic zone method as presented by Dobney and Rielly (1988). A taphonomic assessment of each fragment was undertaken, recording the presence and absence of cut and chop marks, burning and calcination, any evidence for animal activity (canid or rodent gnawing), and surface preservation; any other surface modifications of note were also recorded. At this stage, no attempt was made to sex any of the remains, or to measure any elements. Sheep (*Ovis aries*) and goat (*Capra hircus*) distinctions were also not considered. Fragments of bones that could be identified to element but not any specific species were grouped as far as possible using size and class or order categories. Results were recorded in an electronic proforma in Microsoft Excel.

This assessment has been undertaken in line with published standards and guidelines (Baker and Worley 2019) and with reference to the North West Archaeological Research Framework for the Industrial and 20th Century Period (1750-present; Nevell, accessed November 2022).

Results

Mammal, bird, fish, and marine and terrestrial mollusc remains (995 fragments) were recovered during archaeological works at Temple Bank, Beetham, Cumbria (Tables 1 and 2). Mammal remains dominated the assemblage (n=559), followed by marine molluscs (n=264), terrestrial molluscs (n=155), bird (n=12) and fish (n=5).

Identified mammal remains included equid (*Equus* sp. – horse/donkey/mule), domestic cattle (*Bos taurus*), red deer (*Cervus elaphus*), fallow deer (*Dama dama*), pig (*Sus domesticus*) and sheep/goat (*Ovis aries/Capra hircus*), dog family (Canidae), domestic cat (*Felis catus*), European mole (*Talpa talpa*), field or bank vole (*Microtus agrestis/Myodes glareolus*) and mouse/small vole (*Mus/Apodemus/Micromys/Microtus/ Myodes*), Table 1. Additional remains were identified within size categories at clade (ungulate) or class (mammal) level (49.2% by count, n=275). Five associated bone groups (ABGs) were recognised during the assessment, a cat of some age (ABG 1, unstratified), a fetal or perinate calf (ABG 2, unstratified), a cattle left forelimb (ABG 3, unstratified), a sheep/goat that died at around 9 months of age (ABG 4, context **105**) and a near complete calf that died at less than one year of age (ABG 5, context **103**).

Context	Mammals												Ungulate		Mammal					Total	
	Equid	Cattle	Red deer	Fallow deer	cf. Fallow deer	Deer family	Pig	Sheep /goat	Dog family	Cat	Mole	Field/ bank vole	Mouse/ small vole	Large	Small	Large	Medium /large	Medium	Small		Micro
100		2						2		2								1			7
103	3	74			1		2							1		33	6	23			143
105		3					2	41						2		15	7	1			71
106		1																			1
107	1	11	2				12	13	1					9	5	20	14	13	1		102
107 N		1					1	9						1	3	5	8	7			35
108		1														5		3			9
113		1								2			1					1			5
114		1																			1
125				3		1		5			1	1	1			4	1			3	20
Patio		1														3	1	1			6
Water tank ex wall							1														1
SK1 - chest cavity													1								1
U/S	1	45		1			8	17	3	4				6	4	44	12	12			157
Total	5	141	2	4	1	1	26	87	4	6	3	1	3	19	12	129	49	62	1	3	559

Table 1: Mammal remains from Temple Bank (TB22), count.

Context	Birds			Bird					Fish		Marine molluscs		Terrestrial molluscs					Total			
	Goose	Chicken	Chicken/ pheasant	cf. Mallard	Hawk/ kite	Large	Medium	Tiny	European eel	Tiny fish	Cockle	Mussel	Strawberry snail	Cellar snail	Rotund disc snail	Door snail	Leopard slug				
103	1																				1
105				1																	1
107 N					1																1
113		1																			1
125						1	1	1	2	3	248	12	19								287
SK1 - chest cavity												1	31	3	1	1					37
SK1 - soil sample												1	73							1	75
SK2											1	1	26								28
U/S		3	1			1															5
Total	1	4	1	1	1	2	1	1	2	3	249	15	149	3	1	1	1				436

Table 2: Bird, fish and mollusc remains from Temple Bank (TB22), count.

Bird remains included goose (*Anser* sp.), domestic fowl (*Gallus gallus domesticus* – chicken), possible common pheasant (*Phasianus colchicus*), duck (*Anas* cf. *platyrhynchos*) and hawk or buzzard (Accipitridae), Table 2. Four bird bones could only be identified within size classes.

Fish remains included two bones of European eel (*Anguilla anguilla*), and three that could only be identified as being from 'tiny' fish (up to 15cm in total length). All were recovered from context 125, Table 2.

Marine mollusc remains included common cockle (*Cerastoderma edule*) and mussel (*Mytilus* sp.) and were particularly abundant in context 125.

The terrestrial snail assemblage was dominated by the strawberry snail (n=149, *Trochulus striolatus*), with cellar snail (n=3, *Oxychilus* sp.), rotund disc snail (*Discus rotundatus*), a door snail (n=1, *Clausilia* sp.) and a leopard slug (*Limax maximus*). In some cases, the range and frequencies of terrestrial snail species can be indicative of past environmental conditions, and changes in these over time. However, in this case the assemblage includes species that inhabit a wide range of environments and that are extremely common and widespread throughout the British Isles. As such, the terrestrial snails recovered at Temple Bank do not provide any specific information regarding past conditions at the site.

Taphonomic assessment

Bone surface preservation and fragmentation

Bone surface preservation ranged from excellent (1) to very poor (5) throughout the assemblage (on a scale of 1 to 5 from 'excellent' to 'very poor'). Most specimens had 'good' or 'moderate' surface preservation (82.5% by count, n=476). Fragmentation was moderate throughout the assemblage with many partial bones and some re-fitting specimens recovered.

Butchery

Evidence for butchery in the form of cut, chop and saw marks were recorded on 60 specimens, Table 3. The butcher's saw comes into consistent use in Britain during the mid-18th century (e.g. Cameron *et al.* 2019), as such, the presence of domestic livestock animal remains with evidence for butchery using a saw are consistent with the remains representing food waste discarded by those living or working in the house. Site-wide, evidence for carcass processing was high.

Animal interaction

Carnivore gnawing activity was observed on 24 specimens and rodent gnawing on three. Gnawing activity provides further evidence for carnivores (such as dog, for and/or cat) and rodents at the site, as already demonstrated by the presence of skeletal remains of these species.

Pathology

No skeletal abnormalities possibly resulting from disease, injury or age were recorded.

Burning and calcination

Two fragments of burnt bone were recovered from context **107**, a rib fragment from a large-sized mammals and a longbone shaft fragment from a medium-sized mammal.

Potential for measurements

Eight bones were suitably complete to allow measurement for size estimation. These included cattle, sheep/goat, cat, mole and domestic fowl (chicken).

Potential for ageing and sexing

Bone fusion data for estimation of age at death was recorded for one or both epiphyses of 106 specimens. No mandibles or loose teeth were suitable for providing age at death data. A pig canine tooth indicated the presence of a male, while antler fragments indicate male deer, including fallow deer. No other animal remains were suitable for identifying sex.

Context	Species	Element	Cut	Chop	Saw
100	Cattle	Metacarpal		1	
		Pelvis			1
	Sheep/goat	Tibia		1	
103	Equid	Pelvis		1	
105	Cattle	Pelvis	1	1	
107	Cattle	Mandible		1	
		Humerus		1	2
		Ulna		1	
	Pig	Humerus	1		
	Sheep/goat	Humerus	1	1	
		Radius	1		
		Tarsal 4	1		
		Pelvis		1	
	Large ungulate	Ulna		1	
	Large mammal	Vertebra			1
Rib			3		
125	Sheep/goat	Horncore		1	
		Humerus		1	
		Femur	1		
		Metatarsal	1		
	Fallow deer	Antler		1	
Deer	Antler		1		
Patio	Cattle	Ulna		1	
	Large mammal	Rib			1
U/S	Cattle	Humerus	1		1
		Radius	1		1
		Ulna	1		1
		Pelvis		1	
		Tibia	1		
	Pig	Scapula	1		
		Humerus	1		
		Femur	2	2	2
	Sheep/goat	Tibia			2
		Metatarsal		1	
	Large ungulate	Radius			1
	Large mammal	Longbone shaft		1	1
		Vertebra			2
		Rib		1	4
	Medium mammal	Longbone shaft	1		
Total			16	24	20

Table 3: Butchery evidence at Temple Bank, Beetham (TB22).

Discussion

Many of the species recorded in the assemblage of animal bone and shell recovered during archaeological works at Temple Bank were consistent with those to be expected from medieval to modern deposits in Cumbria. Equids were kept for traction and transportation, cattle for meat, traction, milk and/or leather, pigs for meat, and sheep/goat for meat, milk and/or wool; these taxa are all common features within the assemblages of animal bones recovered from sites within the region and throughout Britain, being four of the main domestic livestock animals from the Neolithic period onwards (Baker and Worley 2019, 3). The species present, along with carcass processing evidence, suggest that a high proportion of the remains represented food waste, with butchery using a saw indicating a post-1750 date. The skeletal elements present, which include low meat-baring elements such as teeth, skull fragments and feet, as well as high meat-baring elements such as scapula, humerus, pelvis and femur, suggest that whole carcasses were brought to the site for butchery.

The marine mollusc remains, comprising cockle and mussel, demonstrate the inclusion of local resources from the sea in the diet. It would be usual in many areas of Britain for the edible oyster to be the most frequently occurring shellfish species, but this was absent at Temple Bank. This may be due to the local availability of high-quality cockles from the cockle beds on the north-west coast of England. Mussels would have also been available very locally.

Context **103** was a very late post-medieval pit fill, with frequent iron working slag recovered alongside the animal bones. The animal bone represented a near complete calf, under 12 months of age at death (ABG 5) with a left humerus indicating the presence of a second, possibly slightly older, calf. There was no evidence for butchery or dismemberment to suggest that the animal had been a meal or had had its skin removed. The pit also contained the only equid remains with chop-marks, which is unusual for this period. Other animal remains included pig, fallow deer (bone rather than antler) and goose. The fill seems to represent a general midden deposit including food and farm carcass waste.

Contexts **105** and **107** were (potentially the same) buried soil layer(s). Context **105** contained the partial remains of a sheep/goat aged around 9 months at death (ABG 4) alongside remains of cattle, pig and a duck. The animal bone from context **107** represented a wide range of domestic and wild animals, including equid, cattle, pig and sheep goat, but also red deer, dog/fox, goose and a bird of prey. The animal remains, again, seem to represent a combination of food waste, farming carcass disposal and, in this case, some likely inclusion of animal bone resulting from natural death (likely the bird of prey bone). The presence of saw butchery evidence indicates that the material is post-1750 in date, consistent with the 18/19th century date proposed for this layer.

Midden **125** was a shell midden, located stratigraphically below layer **107**, and may be late medieval in date. In addition to abundant cockle and mussel shellfish remains, animal bone included sheep/goat, mole, large and tiny bird, eel, tiny fish and very small rodents (small vole and mouse). The marine shell, sheep/goat, large bird and eel remains very likely represent food waste, while the mole, tiny bird and micromammals are more likely to be natural deaths. Antler remains of fallow deer and another complete antler from a young male deer in its second year, having straight, unbranched horns (known as a pricket or spiker) and a horncore of a sheep/goat all with chop marks may indicate that the midden also contained remains resulting from craft production.

None of the remains recovered from grave fills or alongside human skeletal remains are considered to represent grave goods or intentional deposition within human burials.

The material has some local significance in terms of providing information regarding the diet and activities of those living in and around the area between the medieval and modern periods. However, the assemblage is quite small, and there is limited future research potential for the material beyond the information and data contained within this report and associated spreadsheet.

Recommendations for future analysis and dissemination

No further work is recommended for the animal remains recovered from Temple Bank in 2022. This report and associated data should be retained within the site archive and integrated into any site-wide reporting or publication. The animal remains may be discarded on completion of the project.

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Appendix 7: Metal Finds Conservation Report

Conservation Assessment Report: TB22

Site Director/Unit: Dan Elsworth, Greenlane Archaeology Ltd

Conservator: Ian Panter

Date: 19th October 2022

York Archaeology Conservation Report Number 2022/74

Number of artefacts:

Material	Quantity
Iron	1
Copper alloy	1

AIMS AND OBJECTIVES

This report aims to meet the requirements of MAP2 (English Heritage, 2001) and MoRPHE (English Heritage, 2006) to produce a stable site archive. This has involved X-radiography and an assessment of the condition, stability and packaging of the finds.

The condition of the various classes of material is summarised and indicators of unusual preservation noted. The potential of the assemblage for further analysis and research is discussed, and recommendations made for further investigative conservation and long-term storage.

PROCEDURES

The objects were X-rayed using standard Y.A.T. procedures and equipment. One plate was used and given a reference number in the YAT conservation laboratory series (X9810). The X-ray number was clearly marked on the packaging and each image on the radiograph was labelled with its small find number. The plate was packaged in an archival paper envelope.

Both finds were examined under a binocular microscope at X20 magnification. The material identifications were checked and observations made about the condition and stability of the finds, and recorded below. An assessment of each find is given in the table below.

CONDITION ASSESSMENT

X-ray	No:	Assessment
X9810	TB22 SK4 (114) Small Find 1	Labelled Fe Pin? Possible nail shank, incomplete, broken at head and tip ends. No signs of active corrosion, but several longitudinal cracks appearing. No signs of active corrosion, object is stable. X-ray shows a solid core of metal remaining. Fair condition. Recommendation: No further work required
X9810	TB22 SK8 (118) Small Find 2	Labelled as Cu Alloy. Thin twisted strip of copper alloy, broken at both ends. Stable dark patinated surface, no signs of active corrosion. No decoration. X-ray shows solid core of metal surviving. Good condition. Recommendation: No further work required

STATEMENT OF POTENTIAL**Indicators of preservation**

There were no indicators of specific preservation conditions, both objects having come from well-aerated terrestrial deposits.

RECOMMENDATIONS**Further Investigative Conservation**

Further investigative conservation is not recommended for these finds.

Packaging and Long-Term Storage

If retained, both finds will require storage with silica gel to maintain an RH of less than 15% for the iron, and less than 35% for the copper alloy.

REFERENCES

English Heritage, Management of Archaeological Projects, 1991.

English Heritage, Management of Research Projects in the Historic Environment, 2006.